

JVC

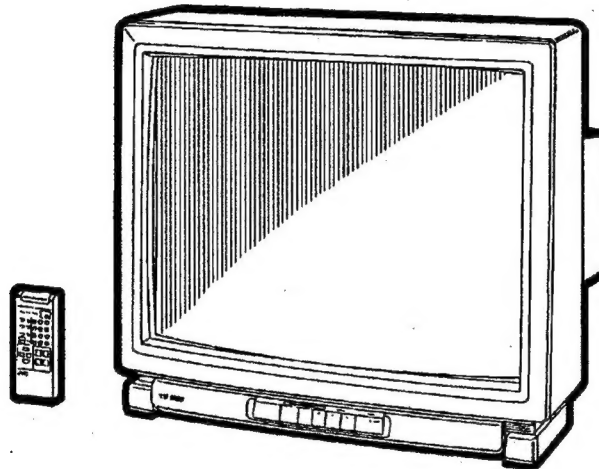
SERVICE MANUAL

27" COLOR MONITOR / RECEIVER

AV-2750S_(us)
AV-2760S_(us)

BASIC CHASSIS

GX



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- AV-2750S and AV-2760S are electrically identical, but their colors are different. Both models are described in this service manual.

SPECIFICATIONS

Item	Content
Dimensions	65.1cm(W) × 52.0cm(D) × 57.5cm(H)
Weight	37.8kg
TV System and Color, Sound System	
TV RF System	CCIR(M)
Color, Sound System	NTSC,BTSC (Multichannel Sound)
TV Receiving Channels and Frequency	
VL Band	(02~06) 54MHz~88MHz
VH Band	(07~13) 174MHz~216MHz
UHF Band	(14~69) 470MHz~806MHz
CATV Receiving Channels and Frequency (Quartz Synthesizer System)	
Low Band	(02~06, A-8) by (02~06, 01)
High Band	(07~13) by (07~13)
Mid Band	(A~I) by (14~22)
Super Band	(J~W) by (23~36)
Hyper Band	(W+1~W+28) by (37~64)
ULTRA Band	(W+29~W+84) by (65~125)
Sub Mid Band	(A8, A4~A1) by (01, 96~99)
TV / CATV Total Channel	180 Channels
Intermediate Frequency	
Video IF Carrier	45.75MHz
Sound IF Carrier	41.25MHz (4.5MHz)
Color SUB Carrier	3.58MHz
Antenna Input Impedance	75Ω (VHF / UHF) Terminal, F-Type Connector
Power Input	120V AC, 60Hz
Power Consumption	147W (max.), 103W (avg.)
Picture Tube	27" In-Line Type, Full-Square Tint Tube
Viewable Picture Size	54.1 cm (W) × 40.6cm (H)
High Voltage	27.5KV ~ 30KV
Speaker	8 × 12cm oval Type × 2
Audio Power Output	3W + 3W
Video External Input	1 Vp-p 75Ω
Audio External input	500 mV rms (-4dBs), High Impedance
Video Line Output	1 Vp-p 75Ω
Audio Line Output	500 mV rms (-4dBs) Low Impedance (400Hz, 100% modu.)
S-VIDEO IN	Y:1 Vp-p (Positive) , 75Ω (Negative sync provided) C:0.286 Vp-p (burst signal), 75Ω
Variable Audio Output	More than 0~1550mV rms (+6db) Low Impedance (400Hz, 100% modu.)

Design & specification subject to change without notice.

SAFETY PRECAUTIONS

- The design of this product contains special hardware, many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Service should be performed by qualified personnel only.
- Alterations of the design or circuitry of the products should not be made. Any design alterations or additions will void the manufacturer's warranty and will further relieve the manufacturer of responsibility for personal injury or property damage resulting therefrom.
- Many electrical and mechanical parts in the products have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the parts list of Service manual. **Electrical components having such features are identified by shading on the schematics and by (⚠) on the parts list in Service manual.** The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement part shown in the parts list of Service manual may create shock, fire, or other hazards.
- Use isolation transformer when hot chassis.**
The chassis and any sub-chassis contained in some products are connected to one side of the AC power line. An isolation transformer of adequate capacity should be inserted between the product and the AC power supply point while performing any service on some products when the HOT chassis is exposed.
- Don't short between the LIVE side ground and NEUTRAL side grounding or EARTH side ground when repairing.**
Some model's power circuit is partly different in the GND. The difference of the GND is shown by the LIVE (⊥) side GND, the NEUTRAL (⚡) side GND and EARTH (⊕) side GND. Don't short between the LIVE side GND and NEUTRAL side GND or EARTH side GND and never measure with a measuring apparatus (oscilloscope etc.) the LIVE side GND and NEUTRAL side GND or EARTH side GND at the same time.
If above note will not be kept, a fuse or any parts will be broken.
- If any repair has been made to the chassis, it is recommended that the B₁ setting should be checked or adjusted (See ADJUSTMENT OF B₁ POWER SUPPLY).
- The high voltage applied to the picture tube must conform with that specified in Service manual. Excessive high voltage can cause an increase in X-Ray emission, arcing and possible component damage, therefore operation under excessive high voltage conditions should be kept to a minimum, or should be prevented. If severe arcing occurs, remove the AC power immediately and determine the cause by visual inspection (incorrect installation, cracked or melted high voltage harness, poor soldering, etc.). To maintain the proper minimum level of soft X-Ray emission, components in the high voltage circuitry including the picture tube must be the exact replacements or alternatives approved by the manufacturer of the complete product.
- Do not check high voltage by drawing an arc. Use a high voltage meter or a high voltage probe with a VTVM. Discharge the picture tube before attempting meter connection, by connecting a clip lead to the ground frame and connecting the other end of the lead through a 10kΩ 2W resistor to the anode button.
- When service is required, observe the original lead dress. Extra precaution should be given to assure correct lead dress in the high voltage circuit area. Where a short circuit has occurred, those components that indicate evidence of overheating should be replaced. Always use the manufacturer's replacement components.
- Isolation Check**
(Safety for Electrical Shock Hazard)
After re-assembling the product, always perform an isolation check

on the exposed metal parts of the cabinet (antenna terminals, video/audio input and output terminals, Control knobs, metal cabinet, screwheads, earphone jack, control shafts, etc.) to be sure the product is safe to operate without danger of electrical shock.

(1) Dielectric Strength Test

The isolation between the AC primary circuit and all metal parts exposed to the user, particularly any exposed metal part having a return path to the chassis should withstand a voltage of 1100V AC (r.m.s.) for a period of one second.

(... Withstand a voltage of 1100V AC (r.m.s.) to an appliance rated up to 120V, and 3000V AC (r.m.s.) to an appliance rated 200V or more, for a period of one second.)

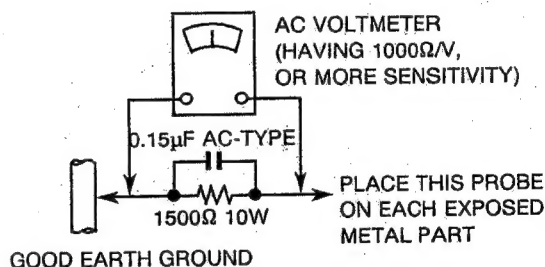
This method of test requires a test equipment not generally found in the service trade.

(2) Leakage Current Check

Plug the AC line cord directly into the AC outlet (do not use a line isolation transformer during this check.) Using a "Leakage Current Tester", measure the leakage current from each exposed metal part of the cabinet, particularly any exposed metal part having a return path to the chassis, to a known good earth ground (water pipe, etc.). Any leakage current must not exceed 0.5mA AC (r.m.s.).

• Alternate Check Method

Plug the AC line cord directly into the AC outlet (do not use a line isolation transformer during this check.) Use an AC voltmeter having 1,000 ohms per volt or more sensitivity in the following manner. Connect a 1,500Ω 10W resistor paralleled by a 0.15μF AC-type capacitor between an exposed metal part and a known good earth ground (water pipe, etc.). Measure the AC voltage across the resistor with the AC voltmeter. Move the resistor connection to each exposed metal part, particularly any exposed metal part having a return path to the chassis, and measure the AC voltage across the resistor. Now, reverse the plug in the AC outlet and repeat each measurement. Any voltage measured must not exceed 0.35V AC (r.m.s.). This corresponds to 0.5mA AC (r.m.s.).



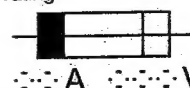
11. High voltage hold down circuit check.

After repair of the high voltage hold down circuit, this circuit shall be checked to operate correctly.

See item "How to check the high voltage hold down circuit".

■ ONLY CANADA

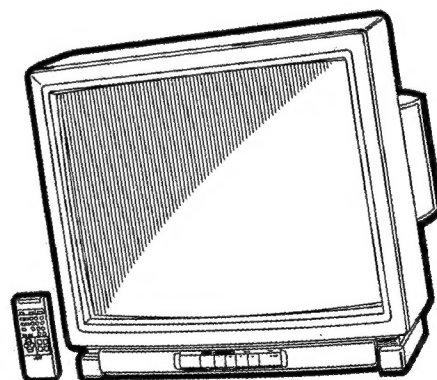
This mark shows a fast operating fuse, the letters indicated below show the rating.



AV-2750S
AV-2760S

OPERATING INSTRUCTIONS

INSTRUCTIONS AV-2750S/AV-2760S COLOR MONITOR/RECEIVER



For Customer Use:

Enter below the Model No. and Serial No. which are located on the rear of the cabinet. Retain this information for future reference.

Model No. _____

Serial No. _____

SAFETY PRECAUTION



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

Caution:

Changes and modifications not approved by JVC could void the user's authority to operate the equipment.

WARNING:

TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS TV SET TO RAIN OR MOISTURE.

CAUTION: TO INSURE PERSONAL SAFETY, OBSERVE THE FOLLOWING RULES REGARDING THE USE OF THIS UNIT.

1. Operate only from the power source specified on the unit.
2. Avoid damaging the AC plug and power cord.
3. Avoid improper installation and never position the unit where good ventilation is unattainable.
4. Do not allow objects or liquid into the cabinet openings.
5. In the event of trouble, unplug the unit and call a service technician. Do not attempt to repair it yourself or remove the rear cover.

Caution:

When you do not use this TV set for a long period of time, be sure to disconnect the power plug from the AC outlet for your safety. If the TV set is plugged into an AC outlet, a small amount of current is applied to the TV set even if the TV set's power is turned off.

Thank you for purchasing a JVC color monitor/receiver (TV). Your JVC TV carries many useful features including the MASTER COMMAND system which allows operation of all TV functions via a single remote control unit. To ensure your complete understanding, please read all instructions in this booklet before operation.

FEATURES

- 27-Inch FS (Full-Square) picture tube
- Comb filter for improved picture quality
- 180-Channel cable-compatible frequency synthesizer tuner with built-in MTS decoder
- S-VIDEO input terminal for taking best advantage of Super VHS
- Video/audio input, line output and variable audio output terminals
- Surround sound capability with external speaker terminals
- MASTER COMMAND remote control with multi-color on-screen "Menu" display, allowing interactive, total TV operation

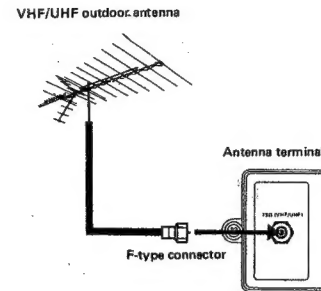
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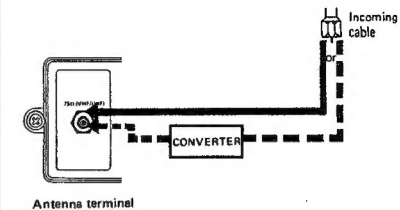
INSTALLATION

ANTENNA CONNECTIONS

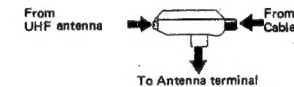
An outdoor antenna is recommended for good TV picture reception. (For installation of the outdoor antenna system, consult your local dealer.)



CABLE TV CONNECTIONS



- Some cable companies require a converter box to receive all available programs. Others may require it for subscription or "premium" programming. Consult your local cable company for correct installation.
- When connecting both a cable (75-ohm coaxial) and a UHF antenna (300-ohm feeder), use the optional antenna mixer (CE1467) to make a single connection.

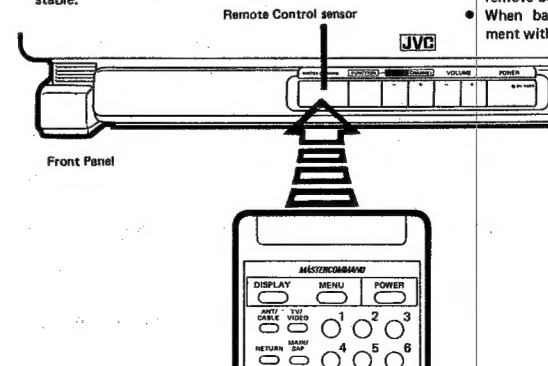


Note: With this antenna mixer, reception of cable channels higher than "Channel W + 17" is not possible.

REMOTE CONTROL USE

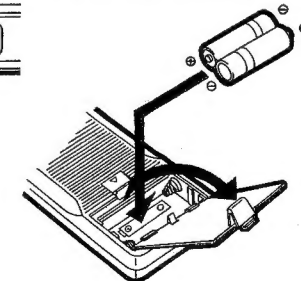
Correct Use

- Point to the Remote Control sensor of the TV set.
- The maximum operable distance is approximately 23 ft from the Remote Control sensor, and no more than 30° to either side of center.
- Operation of the Remote Control is most effective when there is nothing between it and the Remote Control sensor.
- Duration of the batteries is approximately 6 months to 1 year. (Duration varies depending on frequency of use.) Replace the batteries when the remote operation becomes unstable.



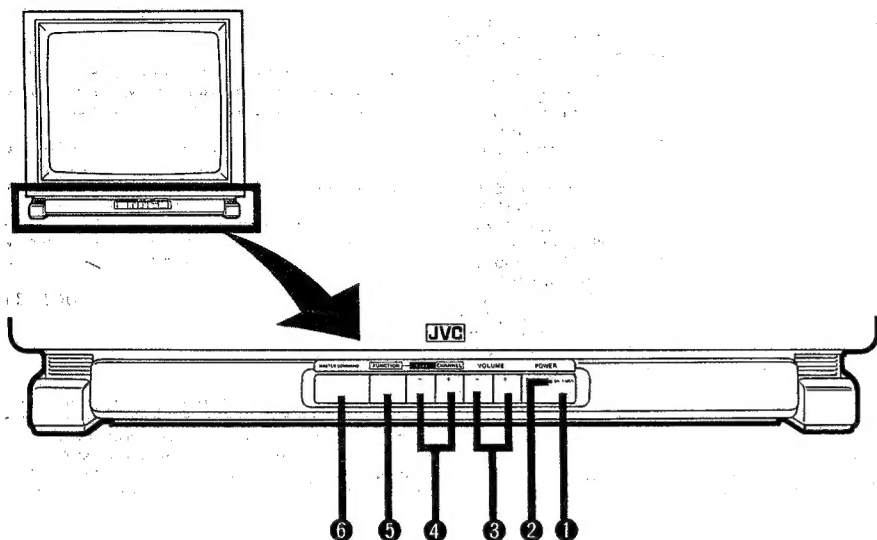
Battery Installation/Notes

- Press the tab and lift up the cover in the direction of the arrow.
- Correctly install the batteries, observing (+/-) polarities as shown.
- Do not use a combination of old and new batteries or batteries of different types.
- If batteries become exhausted, remove and replace them soon.
- If Remote Control will not be used for more than 2 weeks, remove batteries.
- When battery leakage occurs, clean the battery compartment with a soft cloth and replace the batteries.

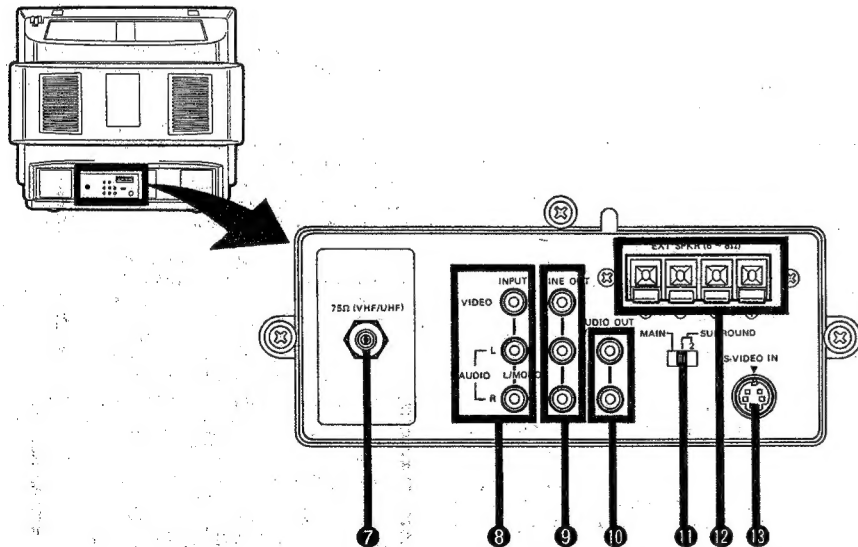


CONTROLS AND THEIR LOCATIONS

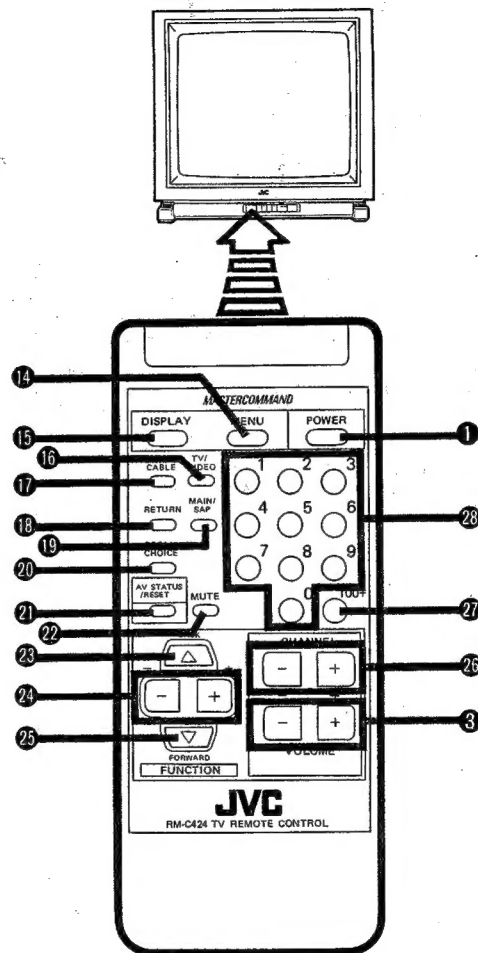
Front Panel Control Section



Rear Panel Control Section



Remote Control Section



Front Panel Control Section

- 1 POWER button
- 2 POWER/ON TIMER indicator
- 3 VOLUME (-/+) buttons
- 4 LEVEL/CHANNEL (-/+) buttons
- 5 FUNCTION button
- 6 Remote Control sensor

Rear Panel Control Section

- 7 Antenna terminal
- 8 VIDEO/AUDIO INPUT connectors
- 9 LINE OUT connectors
- 10 AUDIO OUT (VARIABLE) connectors
- 11 EXT SPKR switch
- 12 EXT SPKR terminals
- 13 S-VIDEO IN connector

Remote Control Section

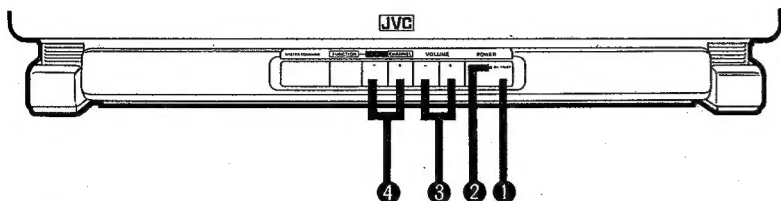
- 14 MENU button
- 15 DISPLAY button
- 16 TV/VIDEO button
- 17 ANT/CABLE button
- 18 RETURN button
- 19 MAIN/SAP button
- 20 RECALL CHOICE button
- 21 AV STATUS/RESET button
- 22 MUTE button
- 23 FUNCTION BACK button
- 24 FUNCTION (-/+) buttons
- 25 FUNCTION FORWARD button
- 26 CHANNEL (-/+) buttons
- 27 100+ button
- 28 10-Digit Keypad

*Buttons 1 and 3 on the Remote Control have the same functions as those of buttons 1 and 3 on the front panel control section.

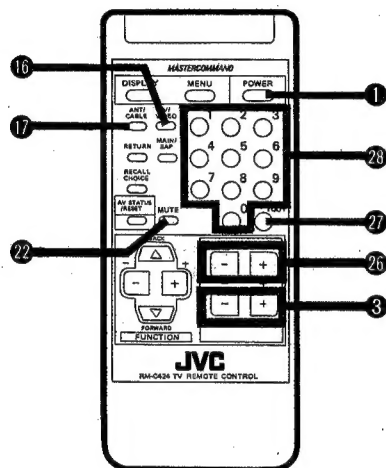
*Please refer to the above numbers on the following pages.

TV OPERATION

Front Panel



Remote Control



First Preparations

- Connect either Antenna or Cable TV by following "Installation" instructions on page 3.
- Insert batteries into the Remote Control unit by following "Remote Control Use" instructions on page 3.
- Connect the power cord to 120 V, 60 Hz AC outlet. The power cord is supplied with a polarized plug. Therefore, it will only insert one way into the wall outlet. DO NOT DEFEAT THE POLARIZED PLUG. If you have difficulty, consult your local dealer.

CABLE TV CHANNEL CONVERSION CHART

In addition to normal TV reception from an antenna for VHF (Channels 2 - 13) and UHF (Channels 14 - 69), your TV set is equipped to receive non-scrambled cable TV channels. Sub-Mid band (A-8, A-4 - A-1), Mid band (A-1), Super band

(J - W), Hyper band (W + 1 - W + 28) and Ultra band (W + 29 - W + 84) can be received by using the channel selections as shown in the following chart.

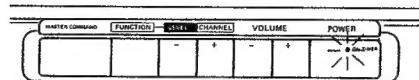
**	A-8	A-4	A-3	A-2	A-1	A	B	C	D	E	F	G	H	I	J	K	L	M	N
**	01	96	97	98	99	14	15	16	17	18	19	20	21	22	23	24	25	26	27
**	0	P	Q	R	S	T	U	V	W	W+1	W+2	W+3	W+4	W+5	W+6	W+7	W+8	W+9	W+10
**	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46
**	W+11	W+12	W+13	W+14	W+15	W+16	W+17	W+18	W+19	W+20	W+21	W+22	W+23	W+24	W+25	W+26	W+27	W+28	W+29
**	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65
**	W+30	W+31	W+32	W+33	W+34	W+35	W+36	W+37	W+38	W+39	W+40	W+41	W+42	W+43	W+44	W+45	W+46	W+47	W+48
**	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84
**	W+49	W+50	W+51	W+52	W+53	W+54	W+55	W+56	W+57	W+58	W+59	W+60	W+61	W+62	W+63	W+64	W+65	W+66	W+67
**	85	86	87	88	89	90	91	92	93	94	95	100	101	102	103	104	105	106	107
**	W+68	W+69	W+70	W+71	W+72	W+73	W+74	W+75	W+76	W+77	W+78	W+79	W+80	W+81	W+82	W+83	W+84		
**	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	

- : Regular cable channel designations
- ** : Your TV set's corresponding on-screen CABLE channel numbers

Note: Reception of channel A-5 ("95" of the TV set's on-screen CABLE channel numbers) is not recommended for your TV set.

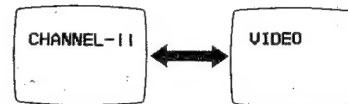
Basic Operating Procedure

- 1 Press **POWER** button ① on either the Remote Control or front panel. **POWER/ON TIMER** indicator ② lights. Press this button again to turn power off.



Note: If the **POWER/ON TIMER** indicator remains lit even after the power is turned off, it shows the **ON TIMER** is in operation. See "5. SET ON TIMER" on page 14 and "7. HOME SITTER" on page 16.

- 2 Press **TV/VIDEO** button ③ on the Remote Control (or the **FUNCTION** and **LEVEL/CHANNEL** (-/+) buttons on the front panel) to select the TV mode.



- 3 Press **ANT/CABLE** button ④ on the Remote Control to select the broadcast mode. Each time it is pressed, the mode is switched between "CHANNEL" and "CABLE". When connected to an antenna, select "CHANNEL" mode for normal VHF/UHF reception. When connected to cable TV, select "CABLE" mode. The on-screen display will show the following:



Note: For mode selection using the front panel controls, see "FUNCTION BUTTONS" on next page.

- 4 Select desired channel using **CHANNEL** (-/+) buttons ⑤ on the Remote Control (or **LEVEL/CHANNEL** (-/+) buttons ⑥ on the front panel). Pressing the (+) button advances to higher channels, (-) button to lower channels.



Note: Certain channels have been preset at the factory. It may be necessary to add or erase some channels in your areas. See "9. INITIAL SET-UP" on page 19 for presetting channels.

- Channels can be selected directly by using 10-Digit Keypad ⑦ on the Remote Control. For example, if you select channel 5, just press "5", or press "0" first, then press "5". For cable channels of 3-digit numbers, use 100+ button ⑧. For example, if selecting channel 120, press 100+ button first, then press "2", then "0". Also refer to the **CABLE TV CHANNEL CONVERSION CHART** on the left page.



Note: When a video source such as a VCR is connected to the antenna terminal to be viewed on Channel 3 (or Channel 4), sometimes channel selection may result in an unclear or distorted picture. In this case, re-select Channel 3 (or 4) by pressing "3" (or "4") of the 10-Digit Keypad and the picture will become clear.

- 5 Press **VOLUME** (-/+) buttons ⑨ on either the Remote Control or front panel to adjust volume to your desired listening level. Pressing the (+) button will increase sound volume, the (-) button will decrease sound volume. The volume level is indicated on the screen by reference numbers (0 - 50) and by a bar scale, as shown.



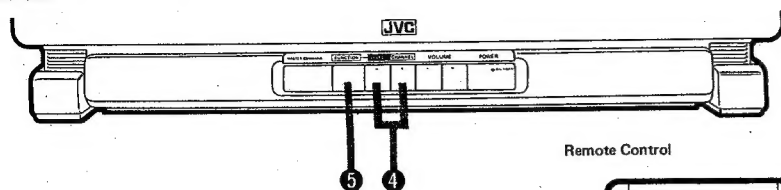
Note: The volume level can be muted instantly by pressing **MUTE** button ⑩ on the Remote Control. See "MUTE Button" on page 21.

On-Screen Display

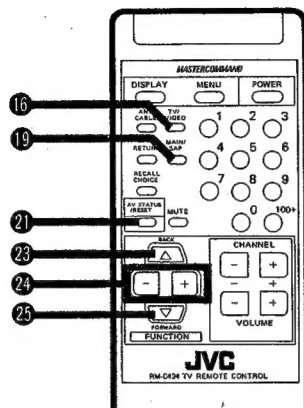
- Once the on-screen display appears on the screen, it disappears in a few seconds. (Only the clock time can be kept displayed on the screen. See "DISPLAY Button" on page 21.)
- When tuned to a channel where no program is being broadcast, the on-screen display may be unclear or blurred.
- On-screen displays are available in two different layouts (except for displays of the channel number and clock time). See "9. INITIAL SET-UP" on page 19 for selecting the display mode.
- Channel numbers of the "CHOICE channels" can be displayed with their station call letters. If you prefer to do so, enter the station call letters when you program the "CHOICE channels". See "1. CHOICE PROGRAMING" on page 10.

FUNCTION BUTTONS

Front Panel

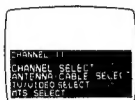


Remote Control



The FUNCTION button on the front panel selects the control modes for TV operation and picture/sound adjustment.

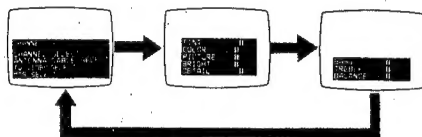
- Press FUNCTION button ④ on the front panel. The first time it is pressed, the following display appears on the screen.



- At this time, the top line shows the current channel number.

Press FUNCTION button ④ to select the desired item for adjustment. Each time the FUNCTION button is pressed, the magenta-colored portion shifts in the order below to show that the colored item in the list can be adjusted.

Note: Three pages of on-screen displays are available with the FUNCTION button.



- 1 CHANNEL SELECT mode
- 2 ANTENNA/CABLE SELECT mode
- 3 TV/VIDEO SELECT mode
- 4 MTS SELECT mode
- 5 TINT adjustment mode
- 6 COLOR adjustment mode
- 7 PICTURE adjustment mode
- 8 BRIGHT adjustment mode
- 9 DETAIL adjustment mode
- 10 BASS adjustment mode
- 11 TREBLE adjustment mode
- 12 BALANCE adjustment mode

Note: The Remote Control's FUNCTION BACK button ⑫ or FORWARD button ⑬ selects only picture and sound adjustment modes: TINT, COLOR, PICTURE, BRIGHT, DETAIL, BASS, TREBLE and BALANCE. The other control modes can be selected directly with the Remote Control's respective buttons. Pressing FUNCTION FORWARD button ⑬ advances the colored portion in the order as shown on the left for "picture/sound adjustment modes", pressing FUNCTION BACK button ⑫ advances in the reverse order.

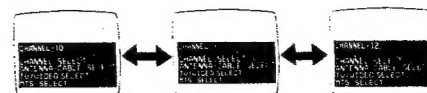
- After selecting the desired mode, press LEVEL/CHANNEL (-/+) buttons ① on the front panel or FUNCTION (-/+) buttons ② on the Remote Control while the selected mode indication is being displayed to make your preferred adjustment. The Remote Control's FUNCTION (-/+) buttons ④ control only picture and sound adjustments.

Notes:

- When using the front panel buttons, before the FUNCTION button is pressed for the first time with nothing displayed on the screen, the TV is in the "CHANNEL SELECT" mode. Therefore, in this mode, channel selection is possible by pressing LEVEL/CHANNEL (-/+) buttons ① on the front panel.
- After completing picture and sound adjustments from the Remote Control, selecting either FUNCTION (-) or (+) button ② will return directly to the last chosen adjustment mode.

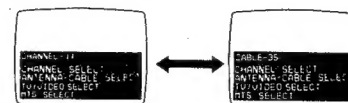
1 CHANNEL SELECT mode

In this mode, press LEVEL/CHANNEL (+) button ① on the front panel to scan up the channel, and press the (-) button to scan down the channel.
(The screen illustrations below show the case when the TV is in the "CHANNEL" mode. When in the "CABLE" mode, the "CABLE" indication appears instead of "CHANNEL".)



2 ANTENNA/CABLE SELECT (broadcast) mode

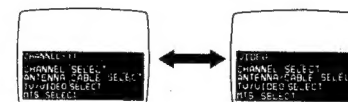
In this mode, press LEVEL/CHANNEL (-/+) buttons ① on the front panel to change the broadcast mode between "CHANNEL" (for regular VHF/UHF channels) and "CABLE" (for cable channels).



3 TV/VIDEO SELECT mode

In this mode, press LEVEL/CHANNEL (-/+) buttons ① on the front panel to switch the mode between "TV" (for off-air or cable TV broadcasts) and "VIDEO" (for video source which is connected to the TV set's VIDEO/AUDIO INPUT connectors or S-VIDEO IN connector). See "CONNECTING TO EXTERNAL EQUIPMENT" on page 22.

Note: Mode selection can be performed with TV/VIDEO button ⑥ on the Remote Control.



4 MTS SELECT mode

Your TV set incorporates an MTS (Multichannel Television Sound) decoder to receive stereo broadcasts and any accompanying SAP (Second Audio Program), such as a bilingual broadcast.

Available sound will be:

- (1) Monaural (MAIN) audio program (regular broadcasts)
- (2) STEREO (MAIN) audio program
- (3) Second Audio Program (SAP)

In this mode, the "ON AIR" shows that the MTS mode is now being broadcast. Press LEVEL/CHANNEL (-/+) buttons ① to change the reception mode among "STEREO", "SAP" and "MONO".

Each time it is pressed, the color of the indication changes from blue to magenta to show that the mode has just been switched.



Notes:

- Mode selection can be performed with MAIN/SAP button ⑩. Each time it is pressed, the mode changes in the order of "STEREO" - "SAP" - "MONO" - "STEREO".
- If the TV set is kept always set to the stereo mode, when a stereo broadcast is received, stereo sound is output automatically.
- If the received stereo signal is weak, noise may be heard. In such a case, press LEVEL/CHANNEL (-/+) buttons ① (or MAIN/SAP button ⑩) to engage the MONO mode for better sound reception.
- If the received SAP signal is weak, the SAP will not be heard. Select the MONO mode for better sound reception.
- Even if both stereo and SAP broadcasts are received, both broadcasts cannot be heard at a time.

When using the TV set for cable reception

Transmission of Cable TV signals may differ from off-air TV broadcasts. It is possible that the multichannel TV sound (MTS) may not be received satisfactorily.

5-12 Picture/sound adjustment modes

In these modes, an adjustment scale with a marker appears on the screen. Press LEVEL/CHANNEL (-/+) buttons ① on the front panel or FUNCTION (-/+) buttons ② on the Remote Control to fine adjust each item to your preference according to the chart below. (The center position is only a reference level, rather than a standard setting.)

(-)	LEVEL	(+)
Reddish	TINT	Greenish
Subdued	COLOR	Vivid
Light	PICTURE	Strong
Dark	BRIGHT	Bright
Soft	DETAIL	Sharp
Soft	BASS	Strong
Soft	TREBLE	Strong
Left	BALANCE	Right

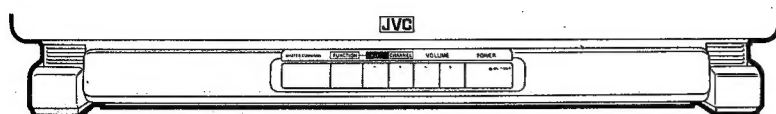
Note: When you wish to restore all adjustment modes to their scales' center positions, use AV STATUS/RESET button ⑪. For details, see "AV STATUS/RESET Button" on page 13.

TINT

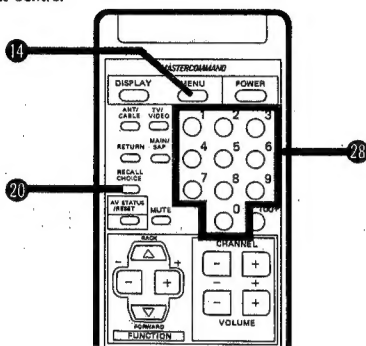


MENU BUTTON

Front Panel

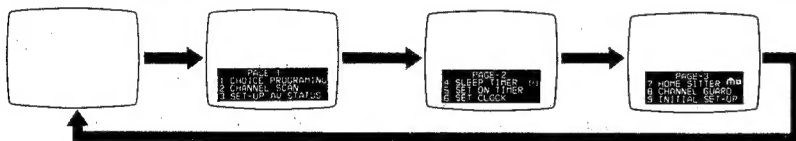


Remote Control



The "MENU" button selects a list of functions that can be programmed for operating the TV more conveniently. This function is possible only on the Remote Control.

- Press MENU button ⑭ on the Remote Control to display the list of programmable convenience functions on the screen. The "MENU" consists of 3 pages. Press the MENU button repeatedly to display the pages in the sequence below.
- Press numbers "1" through "9" on 10-Digit Keypad ⑳ to select the corresponding function in the numbered "MENU".



PAGE-1

1. CHOICE PROGRAMMING

This function enables storing up to 5 frequently-viewed channels as "CHOICE channels", allowing immediate, direct access to the channel of your choice using RECALL CHOICE button ⑫.

- 1) While in the channel select mode (either "CHANNEL" or "CABLE" mode), determine the channel you wish to preset as a CHOICE channel and display it on the screen. (For example, press "0" and "9" to display "CHANNEL 09").

- 2) With "PAGE-1" MENU displayed on the screen, press "1" of 10-Digit Keypad ⑳. The display will show:



- 3) Press a number (1 — 5) on 10-Digit Keypad ⑳ for the CHOICE channel number you wish to preset. Then, the following display will appear. (For example, press "1" for storing "CHANNEL 09" as the "CHOICE 1" channel.)



- 4) With this display, you can store the TV station's call letters for handy reference along with its channel number. (Up to 4 letters can be stored.) If you choose to store the call letters, press "1". The following display will appear.



- If you choose not to store call letters, press "2" of the 10-Digit Keypad. The CHOICE LIST will appear to show that the CHOICE PROGRAMING mode has been disengaged.

- 5) Press the FUNCTION FORWARD/BACK buttons for selecting each of the call letters to be stored. Available characters include the alphanumeric characters (26 English-language letters and 10 numerals), plus various punctuation marks (period, comma, etc.). Then, move the cursor to the next letter position by pressing the FUNCTION (+/-) buttons on the Remote Control. When finished selecting up to 4 call letters, press "1".

(For example, if you store the letters "JVC", keep the FUNCTION FORWARD or BACK button pressed until the letter "J" appears. Then, press the FUNCTION (+/-) button to move the cursor one letter position to the right. Press FUNCTION FORWARD or BACK to select the letter "V", then move the cursor to the right again with FUNCTION (+/-). In the same way, select "C", then press "1" to end the operation.)

The CHOICE LIST is displayed for a few seconds.



- 6) Repeat steps 1) through 5) to preset up to 5 CHOICE channels.

RECALL CHOICE Button

- Simply press RECALL CHOICE button ⑫ anytime you want to call up the list of preset CHOICE channels for convenient direct CHOICE channel selection. While the list is on the screen, press the corresponding number of 10-Digit Keypad ⑳ (1 — 5) to select the preferred channel.



2. CHANNEL SCAN

This feature allows automatic scanning, in ascending order, of the channels which have been stored following the procedures of "9. INITIAL SET-UP" (described on page 19).

- 1) With "PAGE-1" MENU displayed on the screen, press "2" of 10-Digit Keypad ⑳.

- All memorized channels (either "CHANNEL" or "CABLE" mode) will now be scanned sequentially in ascending order beginning with the channel that the TV is tuned to. Scanning will stop automatically when the original channel is reached. "SCAN STOP" appears to show the CHANNEL SCAN mode has finished.

- 2) Press any button on the Remote Control, if you wish to stop scanning at a certain channel before the original channel is reached.

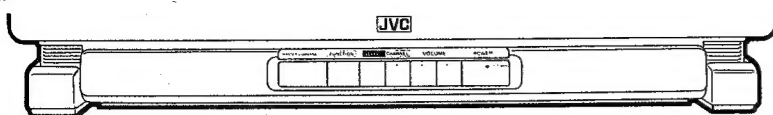
To resume scanning, press MENU button ⑭ and then "2" of 10-Digit Keypad ⑳.

Notes:

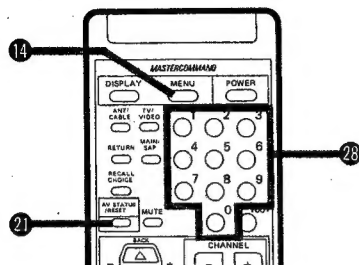
- When the TV is in the "CABLE" mode, the "CABLE" indication appears on the screen instead of "CHANNEL".
- For changing memorized channels, see "9. INITIAL SET-UP".
- If you wish to start CHANNEL SCAN at a specific channel, first select the broadcast mode (CHANNEL or CABLE) then that channel number, and then follow instructions on the left.
- While actual CHANNEL SCAN is being performed, all front panel buttons become inoperable.



Front Panel



Remote Control



3. SET-UP AV STATUS

Your TV set incorporates the AV STATUS memory that can store 2 variations for preset picture/sound adjustments, allowing you to change the picture/sound tone/speaker balance to your preference, depending on each source.

- 1) With "PAGE-1" MENU displayed on the screen, press "3" of 10-Digit Keypad ②. The display will show:



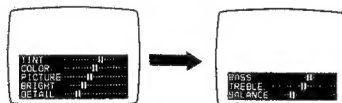
- 2) Make picture adjustments to your preference. Use the FUNCTION BACK/FORWARD buttons to select the item, and use the FUNCTION (-/+) buttons to adjust each item. If you also wish to make sound adjustments, press "1" to advance the adjustment mode display. The following display will appear. (Press "1" again to return to the picture adjustment display.)



- 3) Make sound adjustments to your preference. Use the FUNCTION BACK/FORWARD buttons to select the item, and use the FUNCTION (-/+) buttons to adjust each item. When finished, press "2". The following display will appear.



- 4) Press "1" to store the setting as the "AV STATUS A". (Press "2" to store it as the "AV STATUS B".) Then the picture and sound adjustment settings (items and their reference scales) appear for a few seconds each.



- 5) Repeat steps 1) through 4) for making another AV STATUS setting.

Note: When you wish to choose the preset AV STATUS, just press the AV STATUS/RESET button ① to choose either set of AV STATUS adjustments. For details, see "AV STATUS/RESET Button" on the next page.

AV STATUS/RESET button

Use this button for choosing the preset AV STATUS or for resetting the picture/sound adjustment items. Press AV STATUS/RESET button ① on the Remote Control. The following display appears.



- Another pressing of the AV STATUS/RESET button resets all previously adjusted items to their center positions.

1. AV STATUS A

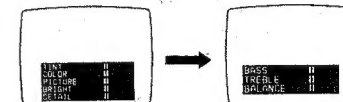
Press "1" of 10-Digit Keypad ② for selecting AV STATUS A. The picture and sound change as preset for "AV STATUS A". Then the picture and sound adjustment settings (items and their reference scales) appear for a few seconds each.

2. AV STATUS B

Press "2" for selecting AV STATUS B. The picture and sound change as preset for "AV STATUS B". Then the picture and sound adjustment settings (items and their reference scales) appear for a few seconds each.

3. RESET

Press "3" when you wish to reset all adjusted items (TINT, COLOR, PICTURE, BRIGHT, DETAIL, BASS, TREBLE and BALANCE) back to their center positions at the same time. The on-screen displays appear and change as follows.



Note: While in this mode, the setting of the AV STATUS cannot be cancelled.

PAGE-2

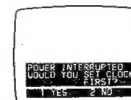
4. SLEEP TIMER

The "SLEEP TIMER" feature allows you to turn off your TV automatically at a preset time.

- 1) With "PAGE-2" (or "PAGE-1" or "PAGE-3") MENU displayed on the screen, press "4" of 10-Digit Keypad ②. The display will show:



- If the built-in clock has not been set to operate properly, the SLEEP TIMER will not function. In this case, the following display will appear on the screen to show that the clock requires adjustment.



Press "1" (YES) of the 10-Digit Keypad to adjust the clock. (If "2" (NO) is pressed, the warning message "YOU CANNOT OPERATE SLEEP TIMER!!" is displayed.)

Set the built-in clock. (See "6. SET CLOCK" on page 15 for details.) When the clock is adjusted, the message "THANK YOU" appears. Then, the following display appears to show that the SLEEP TIMER is now ready to be set.



- 2) Press the numbers on the 10-Digit Keypad to set the desired switch-off time. The SLEEP TIMER can be set for up to 11 hours 59 minutes from the current time.

For example, if it is now 7:00 PM, and you want the TV to switch off automatically at 9:00 PM, press "9", "0" and "0". (The "AM/PM" setting is done automatically.) The selected time of "9:00 PM" appears.

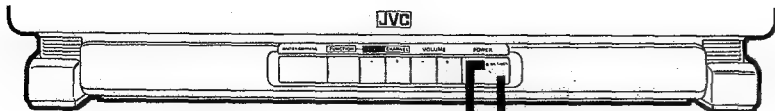
- When you select "1" for hour setting (for example, "1:05 AM"), remember to press "0" first, then press "1", "0" and "5".

- 3) To cancel the SLEEP TIMER setting, key in the current time (the current time setting of the TV's built-in clock).

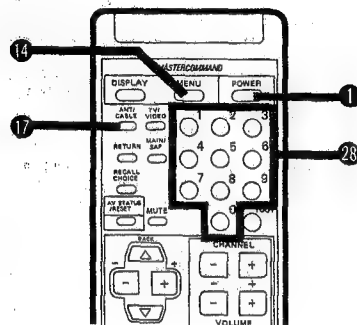
Notes:

- If an invalid time is selected (for example: "5:87"), it will be rejected and the SLEEP TIMER must be reset properly.
- While the SLEEP TIMER is activated, if the POWER button is pressed to turn the power off and on again, the SLEEP TIMER will be cancelled.
- While the SLEEP TIMER is activated, if the power is disconnected (such as in the case of power failure, etc.) and reconnected later, the TV is turned off. When disconnected only for a couple of minutes, the SLEEP TIMER is reactivated; however, it turns the TV off later than the set time by the amount of time of interruption.
- The SLEEP TIMER may turn off the TV a little earlier than the preset time.
- When the remaining time reaches 1 minute, the message, "GOOD NIGHT", will be displayed and continue to blink until the power turns off automatically.

Front Panel



Remote Control



- The second from the bottom line shows the preset time if already previously set.

- 1) SET**
Press "1" to start the ON TIMER for turning the TV on automatically at the preset time shown. "<YES>" appears to show that the ON TIMER has started.
- 2) CANCEL**
Press "2" to cancel the setting. "<NO>" appears to show that the ON TIMER has been cancelled.
- 3) CHANGE**
Press "3" to re-adjust the setting. Then, the following display appears.

5. SET ON TIMER

The "ON TIMER" feature allows you to turn on your TV automatically at a preset time and on a specific channel. The ON TIMER is available for 2 different settings.

With "PAGE-2" (or "PAGE-1" or "PAGE-3") MENU displayed on the screen, press "5" of 10-Digit Keypad. The display will show:



- At this time, if the display of "POWER INTERRUPTED/ WOULD YOU SET CLOCK FIRST?" (which may appear during the SLEEP TIMER procedure) appears, it shows that the clock is not operating, and the ON TIMER will not function.
Press "1" (YES) to set the clock, (if "2" (NO) is pressed, the warning message "YOU CANNOT OPERATE ON TIMER!!" is displayed.)
Set the clock. See "6. SET CLOCK" on page 15 for details regarding clock setting. After the clock has been set, the message "THANK YOU!!" appears to show that the clock has just been adjusted and the ON TIMER is now ready to be set.

Two different settings are possible. Press "1" or "2" to select the setting position. The display will show:



Press the numbers on the 10-Digit Keypad to set the desired switch-on time. For example, if you want the TV to switch on automatically for CHANNEL 12 at 7:00 AM, press "7", "0" and "0". (When you select "1" for hour setting, remember to press "0" first, then press "1".) The selected time of "7:00" appears and immediately the display changes to:



Then, press "1" to select the "AM" setting. (Press "2" to select the "PM" setting.) Then, the following display appears. Press "1" and "2" for specifying "CHANNEL 12".



Now the following display appears on the screen to show the ON TIMER is set to "7:00 AM, CHANNEL 12" with the < YES > indicating the ON TIMER has started. Finally, press POWER button 1 to turn the power off. POWER/ ON TIMER indicator 2 remains lit to show that the ON TIMER is in operation.



Notes:

- If an invalid time is selected (for example: "17:70"), it will be rejected and the ON TIMER must be reset properly.
- First select the broadcast mode (CHANNEL or CABLE) of the channel you wish to set for the ON TIMER with ANT/ CABLE button 17 on the Remote Control before entering the ON TIMER mode, since broadcast mode switching while in the ON TIMER will cancel the mode.
- After the ON TIMER has been properly set, it functions only once for each setting (up to 2 settings are possible) to turn on the TV's power. (It does not operate repeatedly every day at the same time as a serial timer.)
- Once the ON TIMER turns the TV on automatically, if the TV is not operated in any way, after 2 hours the TV will turn off automatically for safety. A single adjustment, even audio level adjustment or channel selection, will cancel this switch-off function.
- While the ON TIMER is activated, if the power is disconnected (such as in the case of power failure, etc.) and reapplied later, the ON TIMER is cancelled. When disconnected only for a couple of minutes, the ON TIMER is reactivated; however, it turns the TV on later than the set time by the amount of time of interruption.
- If the channel which has already been set as a "Guarded Channel" is selected, that channel is rejected and cannot be set for the ON TIMER. (For details of the Guarded Channels, refer to page 17.)

6. SET CLOCK

Your TV has a built-in clock. Set the clock as follows.

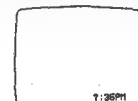
- 1) With "PAGE-2" (or "PAGE-1" or "PAGE-3") MENU displayed on the screen, press "6" of 10-Digit Keypad. The display will show:



- 2) Then, press the numbers (be sure to key in 4 digits) on the 10-Digit Keypad to set the current time. For example, if the present time is 7:35 PM, press, "7", "3" and "5". Then, the display changes to:



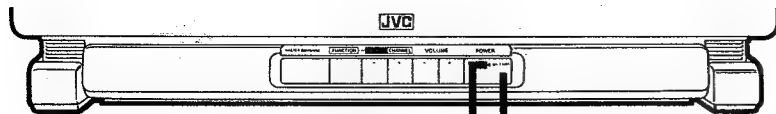
- 3) Press "2" to select the "PM" setting. (Press "1" to select the "AM" setting.) Then, the display changes to the following to show the current time is set and the clock starts operating.



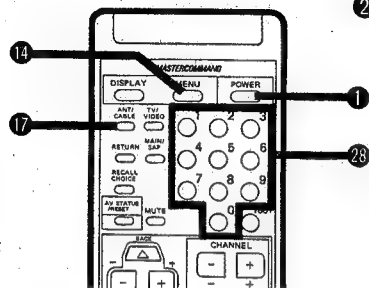
Notes:

- If an invalid time is selected (for example: "17:70"), it will be rejected and the built-in clock must be reset properly.
- If you wish to set the clock precisely, in step 3) above, press "2" (or "1") at the same instant of a time signal.
- The built-in clock may lose time depending on the manner in which the TV is used or the frequency of the power source. If the time difference becomes great, re-adjust the clock.
- If the power is disconnected (such as in the case of a power failure, etc.), and reapplied later, the clock will stop operating. (The clock status can be checked on screen. Press the DISPLAY button. If the clock has stopped, the message "CLOCK STOPPED" is displayed instead of the current time. See "DISPLAY Button" on page 21 for details.) When disconnected only for a couple of minutes, the clock is reactivated; however, it will be later than the actual time by the amount of time of interruption.

Front Panel



Remote Control



PAGE-3

7. HOME SITTER

The "HOME SITTER" feature enables the TV to be turned on and off automatically at preset times every day. With "PAGE-3" (or "PAGE-1" or "PAGE-2") MENU displayed on the screen, press "7" of 10-Digit Keypad. The display will show:



- At this time, if the display of "POWER INTERRUPTED/ WOULD YOU SET CLOCK FIRST?" appears, it shows that the clock is not operating, and the HOME SITTER will not function. Press "1" (YES) to set the clock. (If "2" (NO) is pressed, the message "YOU CANNOT OPERATE HOME SITTER!!" is displayed.) Set the clock. See "6. SET CLOCK" on the previous page for details regarding clock setting. After setting the clock, the message "THANK YOU!!" appears to show that the clock has just been adjusted and the HOME SITTER is now ready to be set.

1) SET

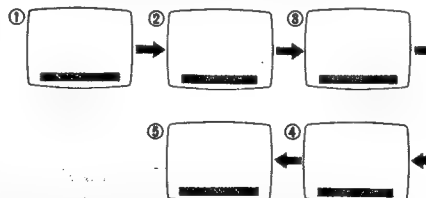
Press "1" to place the HOME SITTER in standby. The ON/OFF time and channel number which have been previously set will be displayed. When POWER switch ① is pressed to turn the TV off, POWER/ON TIMER indicator ② lights and "YES" appears on the screen to show that the HOME SITTER is in operation.

2) CANCEL

Press "2" to cancel the HOME SITTER. "NO" appears to show that the HOME SITTER has been cancelled.

3) CHANGE

Press "3" to re-adjust the HOME SITTER setting. Follow the on-screen displays to set the switch-on time, switch-off time and channel number, using the 10-Digit Keypad.



① Set the switch-on time.

② Select "AM" or "PM".

③ Set the switch-off time.

④ Select "AM" or "PM".

⑤ Set the channel number.

When the channel number is set, the display will show:



- This display shows that the HOME SITTER is set to switch the TV on at 6:30 PM, switch it off at 11:00 PM and the channel to be received is "CABLE 13".

Notes:

- If an invalid time or channel number is selected, it will be rejected and it must be reset properly.
- First select the broadcast mode (CHANNEL or CABLE) of the channel you wish to set for the HOME SITTER with ANT/CABLE button ⑦ on the Remote Control before entering the HOME SITTER mode, since broadcast mode switching while in the HOME SITTER will cancel the mode.
- If you wish to reset the switch-on time only, stop keying in data (waiting until the on-screen display disappears) after keying in the AM/PM setting, or press keys other than 10-Digit Keypad. And, if you wish to reset the switch-on and switch-off time only, the procedure is the same.
- The function that automatically turns the TV off for the ON TIMER, if no TV operation is performed after 2 hours, does not operate for the HOME SITTER.
- If the power is disconnected (such as in a power failure, etc.), and reappplied later, the HOME SITTER will be cancelled. When disconnected only for a couple of minutes, the HOME SITTER is reactivated; however, it turns the TV on and off later than the set time by the amount of time of interruption.
- If the channel which has already been set as a "Guarded Channel" is selected, that channel is rejected and cannot be set for the HOME SITTER. (For details of the Guarded Channels, see below.)

8. CHANNEL GUARD

The "CHANNEL GUARD" feature allows you to assign an "ID number" to specific channels of your choice, making them "Guarded Channels". This prevents these specific channels from being selected, unless the "ID number" is keyed in.

First select a channel you wish to set as a Guarded Channel. With "PAGE-3" (or "PAGE-1" or "PAGE-2") MENU displayed on the screen, press "8" of 10-Digit keypad. The display will show:



Then, press "0". The display changes to:



- Channel numbers displayed are the Guarded Channels, if already previously set.

1) SET

Press "1". The display changes to:

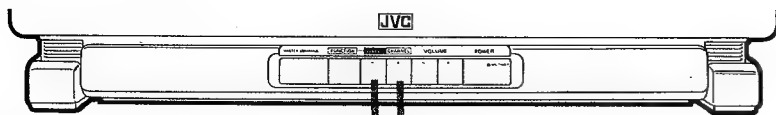


For example, if the current channel being received is "CHANNEL 25", and you wish to store this channel as Guarded Channel 1, then press "1". The display changes to show that CHANNEL 25 is now set as Guarded Channel 1.

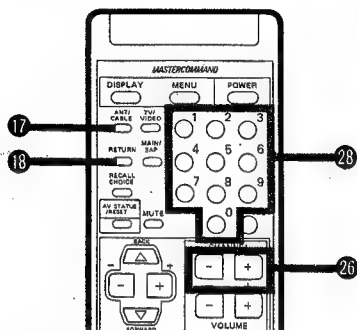


Continued on next page ➔

Front Panel



Remote Control



Viewing Guarded Channels

1) Select the Guarded Channel. (If the Guarded Channel you wish to view is CHANNEL 25, press "2" and "5".) Then, the following display appears:



2) Key in the ID number using the 10-Digit Keypad. The channel appears.

3) If the keyed-in ID number is incorrect, the display shows:



And the Guarded Channel you have selected cannot be seen.

Notes:

- If you wish to change the ID number, follow the steps of "3) SET ID NO."
- If the power is disconnected (such as in the case of power failure, etc.), and reapplied later, the ID number is reset to "000".
- When performing the CHANNEL SCAN function, or selecting channels using CHANNEL (-/+) buttons (26), the Guarded Channels are skipped.
- In the following cases, the Guarded Channel can be seen without keying in the ID number:
 - =When you press RETURN button (18) from a channel which has been selected immediately after viewing a Guarded Channel
 - =When you press ANT/CABLE button (17) from a channel of a different broadcast mode (CHANNEL or CABLE) which has been selected immediately after viewing a Guarded Channel
 - =When you press CHANNEL (-/+) buttons (28) on the Remote Control or LEVEL/CHANNEL (-/+) buttons (26) on the front panel, while in the MANUAL PROGRAM mode of the INITIAL SET-UP (on MENU PAGE-3), if the selected channel which has already been ADDED happens to also be a Guarded Channel.
 - =When you press "4" (CHANNEL UP) or "5" (CHANNEL DOWN) of the 10-Digit Keypad while in the MANUAL PROGRAM mode of the INITIAL SET-UP, if the Guarded Channel happens to also be the next higher or lower channel following the one to which you are presently tuned.
 - =While in the AUTO PROGRAM mode of the INITIAL SET-UP, if the AUTO PROGRAM is interrupted immediately when a Guarded Channel appears.
 - =When the channel which has already been set for the ON TIMER or HOME SITTER is set as a Guarded Channel.
- If you forget the ID number which you have set, reset it.

2) CANCEL

Press "2" to cancel the Guarded Channel. The display will show:



With this display on the screen, press the number of the Guarded Channel you wish to cancel from the list. For example, if you wish to cancel CHANNEL 25 (in this case, Guarded Channel 1) from the list, press "1". Then the display changes to show that CHANNEL 25 (Guarded Channel 1) has been cancelled.



3) SET ID NO.

Press "3" to set the ID number. The display will show:



Press any 3 digits you wish to be the ID number. When completed, "ENTERED" appears to show that the ID number you have just keyed in is set.



9. INITIAL SET-UP

The INITIAL SET-UP feature allows you to perform basic settings for the TV status. This consists of Channel Memory (Auto/Manual), Message Style and Noise Mute.

Note: When performing Channel Memory (MANUAL PROGRAM), select an appropriate broadcast mode (either "CHANNEL" or "CABLE") before you select the INITIAL SET-UP mode.

With PAGE-3 (or PAGE-1 or PAGE-2) MENU displayed on the screen, press "g" of 10-Digit Keypad (28). The display will show:



Press appropriate 10-digit key to select the item.

1) AUTO PROGRAM

This function allows memorizing the channels automatically to match the TV broadcasts and cable channels of your area. The memorized channels can be selected by CHANNEL (-/+) buttons (26) on the Remote Control or LEVEL/CHANNEL (-/+) buttons (26) on the front panel, or in the CHANNEL SCAN mode, while skipping channels where there are no broadcasts.

Press "1" of the 10-Digit Keypad. The following display will appear and the program set-up procedure begins automatically.



When tuned to a channel in which a TV program is broadcast, the following display appears and this channel is memorized.



When the AUTO PROGRAM procedure (scanning and memorizing) is completed, it will be indicated by the following display.



Notes:

- If the broadcast signals are weak, the channel may not be memorized. In this case, perform the MANUAL PROGRAM procedure.
- The AUTO PROGRAM procedure takes approximately 4 minutes. If you wish to stop this procedure before completion, press any button on the remote control.

2) MANUAL PROGRAM

Similar to the AUTO PROGRAM function on the left, this is for memorizing channels, but it is performed manually. The resulting Manual Programming is also effective when performing up/down channel selection or CHANNEL SCAN.

Press "2". The display will show:



The current tuned-in channel

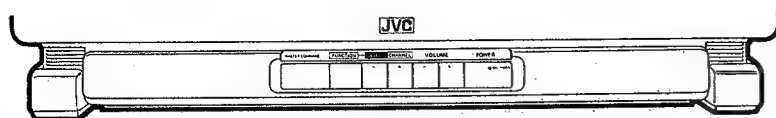
Simply follow the on-screen instructions.

Note: First select the broadcast mode before entering this MANUAL PROGRAM mode.

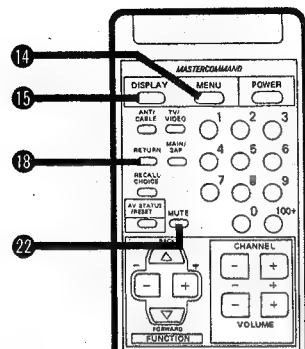
- 1) Press "1" (ADD) to add this channel in memory. A bar "-" will appear between the broadcast mode (CHANNEL or CABLE) and the channel number to show that the channel has been memorized.
- 2) Press "2" (ERASE) to erase this channel from memory. If you do not wish to preset it in memory or if no TV station is broadcasting on it. The bar between the broadcast mode and channel number will disappear.
- 3) Press "4" (CHANNEL UP) or "5" (CHANNEL DOWN) to select the next higher or lower channel.
- 4) Press "3" (END) when you have stored all required channels in memory.
- 5) When you wish to store channels of the other broadcast mode, select the mode first, then repeat steps 1) through 4).
 - In step 3) above, if selecting channels is difficult, press the CHANNEL (-/+) buttons on the Remote Control.
 - Be sure to perform these operations using the Remote Control.

Continued on next page ➔

Front Panel



Remote Control

**3) MESSAGE STYLE**

This function is for switching the black background of the on-screen display on and off (except for channel numbers and clock time.) Press "3". The display will show:



Press "1" to select the on-screen display mode with a black background.



(VOLUME indication)

Press "2" to select the on-screen display mode without a black background.



(VOLUME indication)

4) NOISE MUTE

The NOISE MUTE feature allows replacing the "snowy" screen of vacant non-broadcast channels with a blue-blank screen; and, at the same time, muting the noisy sound. Press "4". The display will show:



Press "1" to select the Noise Mute mode for a blue-blank screen with no sound.

Press "2" to release the mode. Screen is normal (without blue-blank screen) and sound can be heard.

Note: The Noise Mute mode can be activated only when either no signal is being input or when a weak signal is being received.

- If you wish to view a TV program having a weak broadcast signal, release the Noise Mute mode to prevent it from being activated.
- If you use an antenna system, before adjusting it (extending, rotating, etc.), release the Noise Mute mode to prevent it from being activated when the signal condition changes.
- When playing back VCR recordings or the like, picture and sound muting conditions might continue to occur for a few seconds after engaging the Play mode. Release the Noise Mute mode when necessary.
- When the Noise Mute mode is engaged, it is also applied to the output signals, both from the LINE OUT connectors and from the AUDIO OUT (VARIABLE) connectors. Release the Noise Mute mode to prevent it from having effect when connecting external components to the TV.

MASTER COMMAND SELF-DEMONSTRATION FEATURE

Your TV has a self-demonstration feature for the incorporated MASTER COMMAND system, demonstrating automatically all major functions of the MASTER COMMAND.

With PAGE-1 (or PAGE-2 or PAGE-3) MENU displayed, press "0" twice of the 10-Digit Keypad ("0-0"), or press the FUNCTION and VOLUME (-) buttons on the front panel simultaneously. The demonstration automatically begins in the following order. If you wish to stop the demonstration anytime while it is running, press any key on the Remote Control or on the front panel.

**Demonstration procedure**

SET CLOCK*

Picture adjustment

RESET (picture adjustment)

CHOICE PROGRAMING

SET-UP AV STATUS

SLEEP TIMER

SET ON TIMER

HOME SITTER

CHANNEL GUARD

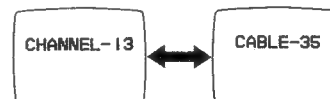
MESSAGE STYLE

*The SET CLOCK mode can operate only when the built-in clock is stopped.

Note: Operating this function adjusts the clock, timer settings, and all other functions to specific demonstration settings. Therefore, re-adjustment of these settings is required once the demonstration has been executed.

MORE USEFUL FUNCTIONS**RETURN Button**

Press RETURN button ① on the Remote Control. The previously viewed channel will appear on the screen. Press RETURN again to switch back to the original channel. Repeatedly pressing RETURN switches between these two channels.

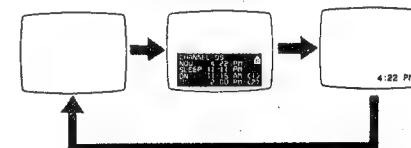
**MUTE Button**

Press MUTE button ② on the Remote Control. The sound of the TV program being viewed will be reduced to zero and "VOLUME 0" will appear on the screen. Press again to restore the sound.
Note: Changing the audio volume or channel number also restores the sound.

**DISPLAY Button**

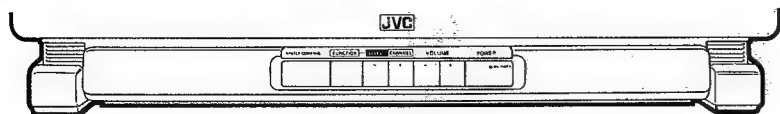
Press DISPLAY button ③ on the Remote Control. The channel number of the program you are now viewing, the SLEEP TIMER/ON TIMER settings, HOME SITTER settings, and the current time are displayed in the order as shown below by each pressing of the DISPLAY button. The current time remains displayed on the screen until the DISPLAY button is pressed again.

Note: If the SLEEP TIMER and/or ON TIMER and/or HOME SITTER is cancelled, their settings will not be displayed.

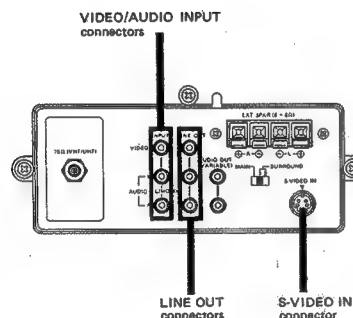
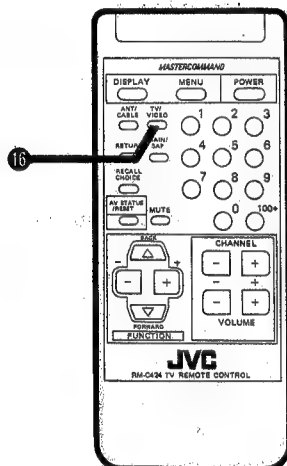


CONNECTING TO EXTERNAL EQUIPMENT

Front Panel

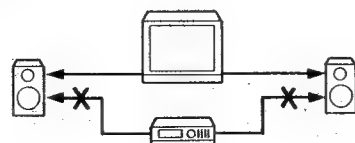


Remote Control



- Prior to making any connections to your TV set, be sure to turn the POWER off.
- For a more detailed understanding of each connection, it is recommended that you read the instruction manual for each connected component.
- If you use video or audio equipment placed too near the Monitor/Receiver, picture and/or sound may become distorted due to interference between these components. In such a case, separate each piece of equipment at a sufficient distance.
- The following shows examples for connecting external equipment.

- Do not connect another audio source to the same speaker to which the TV set is connected, otherwise damage may result to the amplifier of the TV set or to that of the other audio source.

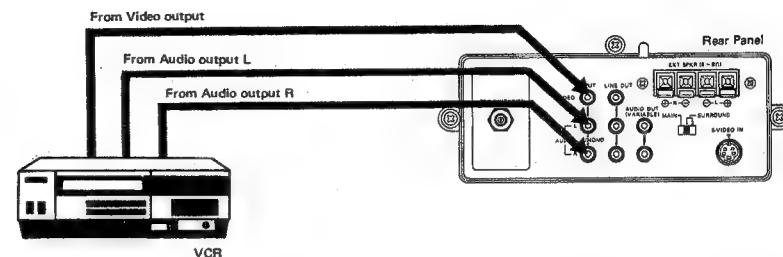


1 VIDEO/AUDIO INPUT connectors

- To view a connected video source, press TV/VIDEO button ① on the Remote Control to engage the VIDEO mode.

Notes:

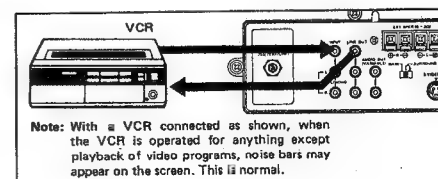
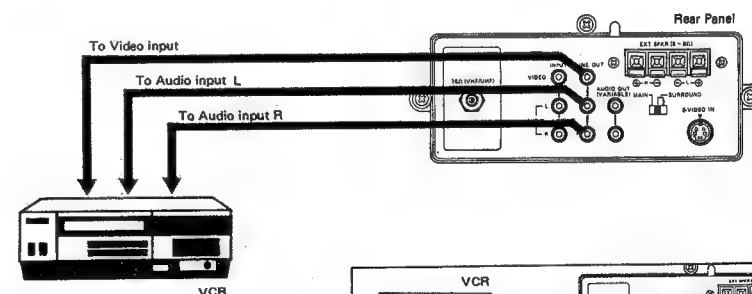
- If the connected video equipment outputs monaural audio, connect to the AUDIO L/MONO (left channel) connector. Sound will be output from both right and left speakers.
- When the S-VIDEO IN connector is used, this VIDEO INPUT connector function becomes inoperable.



2 LINE OUT connectors

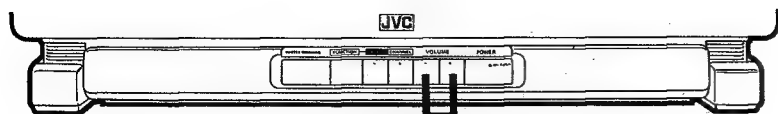
- The video and audio signals available at these connectors are the same as the source presently being monitored on the TV. This is convenient for VCR connection.

Note: Video signals that are input to the S-VIDEO IN connector cannot be output from the VIDEO connector of the LINE OUT connectors.

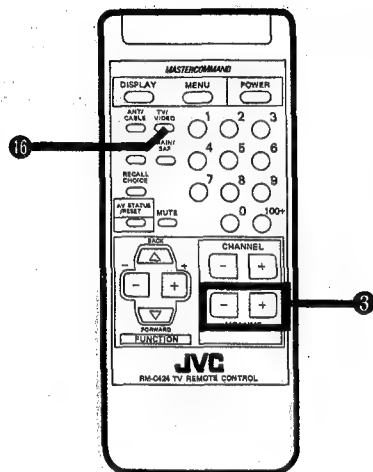


Note: With a VCR connected as shown, when the VCR is operated for anything except playback of video programs, noise bars may appear on the screen. This is normal.

Front Panel



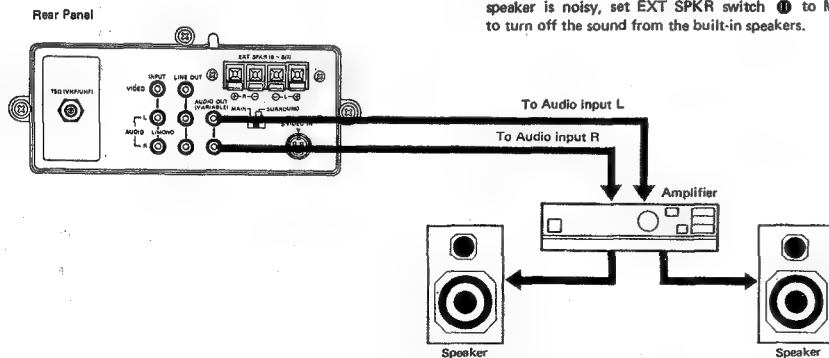
Remote Control



3 AUDIO OUT (VARIABLE) connectors

- The audio signals available at these connectors are the same as the audio source of the program being monitored on the TV screen.

- Connect a stereo amplifier to these connectors to listen to the sound through external speakers connected to the amp. The audio output level can be adjusted via VOLUME (-/+) buttons ③ on either the Remote Control or front panel.
- If the sound which is output from the TV's built-in speaker is noisy, set EXT SPKR switch ① to MAIN to turn off the sound from the built-in speakers.

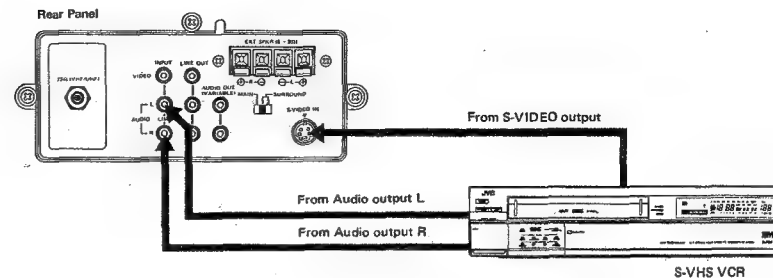


4 S-VIDEO IN connector

- S-VIDEO IN connector is for the separated Y (luminance) and C (chrominance) video signals conforming to the NTSC system, ideal for connection of an S-VHS (Super VHS) VCR.
- Connect the audio output cable to AUDIO INPUT connectors.

- Press TV/VIDEO button ① on the Remote Control to engage the VIDEO mode to view pictures from the S-VHS VCR.

Note: When equipment is connected to this connector, the VIDEO INPUT connector function becomes inoperable.



5 Using external speakers

- Connect speaker cables while making sure that the wiring of speaker's polarities is correct.
 - Set EXT SPKR switch ① to MAIN. The sound from the TV's built-in speakers is turned off, and the sound will be heard only from the speakers which are connected to EXT SPKR terminals ②.
- (For "SURROUND 1" and "SURROUND 2" of EXT SPKR switch ①, refer to "Listening to surround sound" on page 26.)

Notes:

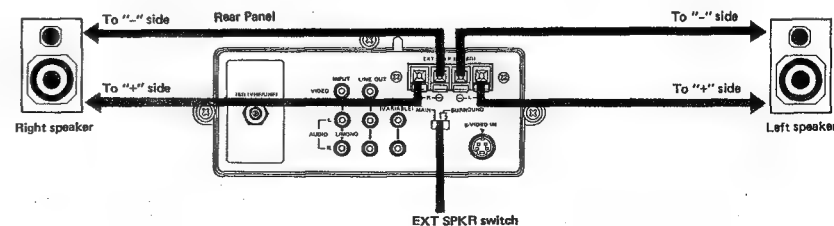
- Use speakers of 6-to 8-ohm impedance.
- If the "+" and "-" terminals are short-circuited, it may cause damage to the TV set.
- It is recommended to use magnetically shielded speakers. If you use speakers other than these, place them at a sufficient distance from the TV set, otherwise the magnetic field generated from such speakers cause unstable picture color.
- Do not connect another audio source to the same speaker to which the TV set is connected, otherwise damage may result to the amplifier of the TV set or to that of the other audio source.

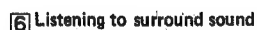
< Setting the EXT SPKR switch >

The output sound differs depending on the switch setting.

Switch setting	Sound output	
	Built-in speakers	Speakers connected to the EXT SPKR terminals
MAIN	No sound	Normal sound
SURROUND 1	No sound	Surround effect sound*
SURROUND 2	Normal sound	Surround effect sound*

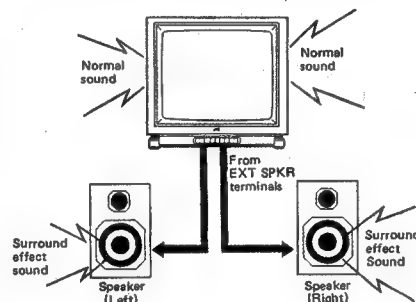
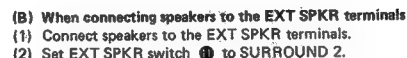
*Surround effect sound will be output when the sound source is stereo. No sound will be output when the sound source is monaural.





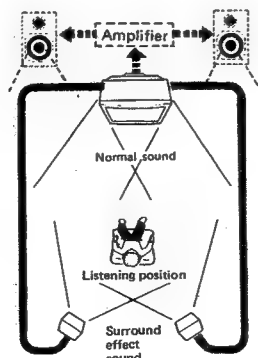
- The surround effect sound is possible only when the sound source being listened to is stereo. (In the case of monaural sound source, no sound from the speakers connected to the external speaker terminals will be output. Therefore, listening to surround sound is impossible.)
- Set the marker of the scale of the **BALANCE** adjustment mode to its center position using the **FUNCTION** button(s) and/or the **AV STATUS/RESET** button. See page 13.

- (A) When using an external stereo component system
- (1) Connect each component as illustrated.
 - (2) Set EXT SPKR switch **1** to SURROUND 1.



< Speaker positioning >

As shown below, position the speakers so that the normal sound can be heard in front and the surround effect sound can be heard in back of the listening position.



Be sure to review all the instructions written in this booklet. Then try to check according to the following chart.

Be sure to review all the instructions written in the book before attempting to service the TV.	
PROBLEMS	<p>TRY THIS →</p> <p>Is the power cord plugged in? Check the AC outlet. Check antenna connections and wiring. Try another channel. If OK, station broadcast problem. Move antenna in different direction. Is it a black-and-white program? Adjust COLOR control. Adjust TINT control. Replace batteries of remote control unit.</p> <p>→</p>
Picture rolls vertically.	
Noise bars on screen.	
Picture blurred.	
Lines or streaks in picture.	
Weak picture.	
Wrong colors.	
No color.	
Sound OK but picture poor.	
Picture OK but sound poor.	
Neither picture nor sound.	
Sound OK but no picture.	<p>Important: An outdoor antenna system of good quality and condition is recommended to eliminate many service problems.</p>
Weak or inoperable remote control.	
<p>THEN, CALL FOR SERVICE PERSONNEL. Be sure to disconnect the power plug, and never try to service the TV yourself.</p>	

SPECIFICATIONS

Type	: Color monitor/receiver	Line output terminals	: Video/1 Vp-p, 75 ohms
Reception system	: NTSC system, BTSC system (Multichannel sound)		: Audio/500 mV rms (-4 dBs), low impedance (400 Hz when modulated 100 %)
Channel coverage	: VHF 2 - 13, UHF 14 - 69; Sub- Mid, Mid, Super, Hyper and Ultra bands (180-channel frequency synthesizer system)	S-VIDEO IN terminal	: Y/1 Vp-p positive, 75 ohms (negative sync provided) C/0.286 Vp-p (burst signal), 75 ohms
Power requirement	: AC 120 V, 60 Hz	Variable audio output terminals	: More than 0 - 1550 mV rms (+6 dBs), low impedance (400 Hz when modulated 100 %)
Power consumption	: Max. 147 W, Avg. 103 W		: Impedance 6 - 8 ohms
Screen size	: 27" diagonally measured, Full Square	External speaker terminals	
Audio output	: 3 W + 3 W	External dimensions (W x H x D)	: 25-3/4" x 22-3/4" x 20-1/2"
Speakers	: 3-3/16" x 4-3/4" ellipse x 2	Weight	: 83.1 lbs
Antenna input terminal	: 75-ohm (VHF/UHF) terminal (F-type connector)	Accessories	: Remote control unit (RM-C424) AA-size dry cell battery x 2
External input terminals	: Video/1 Vp-p, 75 ohms Audio/500 mV rms (-4 dBs), high impedance		

Design and specifications subject to change without notice.

SPECIFIC SERVICE INSTRUCTIONS

DISASSEMBLY PROCEDURE

■ REMOVING THE REAR COVER

1. Unplug the power supply cord and remove the eleven screws marked **A** shown in Fig. 1
- * When reinstalling the rear cover, carefully push it inward after inserting the main board into the rear cover groove.

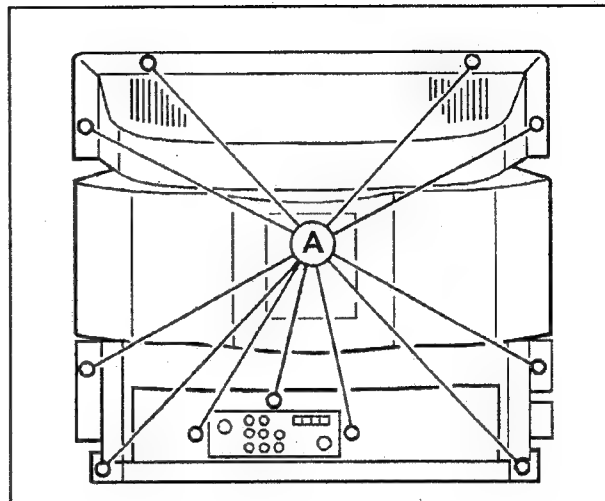


Fig. 1

■ REMOVING THE MAIN BOARD

1. As shown in Fig. 2, slide and pull out the board in the direction of arrow. (If necessary, take off the wire clamp and connectors.)
- * When conducting a check with power supplied, be sure to confirm that the CRT earth wire is connected to the CRT socket board and the MAIN board.

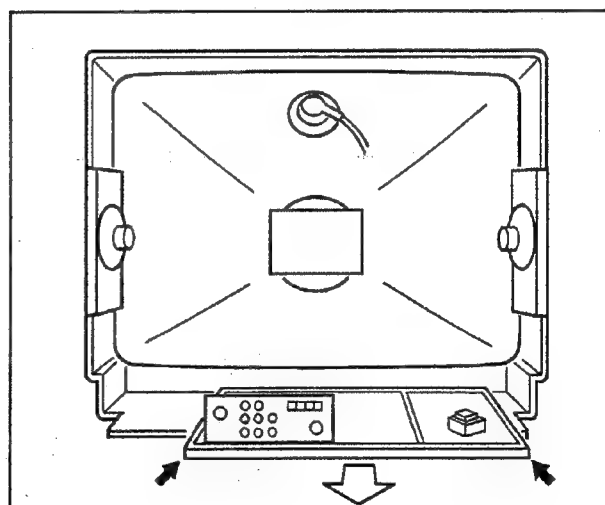


Fig. 2

■ SETTING UP CHASSIS FOR CHEK/REPAIR

1. As shown in Fig.3, set the removed chassis upright.
- * When conducting a check with power supplied, be sure to confirm that the CRT earth wire is connected to the CRT socket board and the chassis..

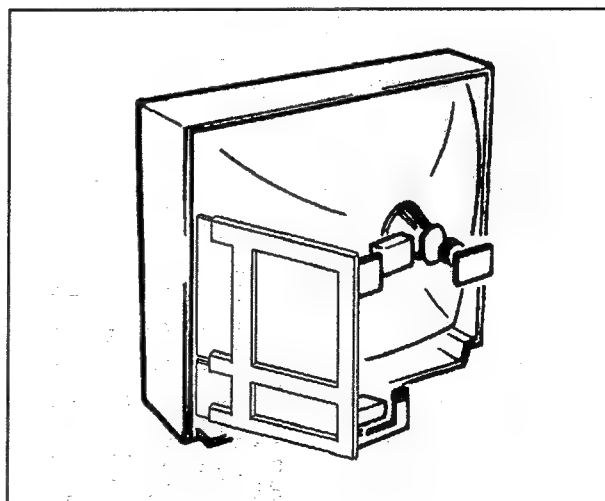


Fig. 3

■ WIRE CLAMPING AND CABLE TIES

1. Be sure to clamp the wire.
2. Never remove the cable tie used for tying the wires together. Should it be inadvertently removed, be sure to tie the wires with a new cable tie.

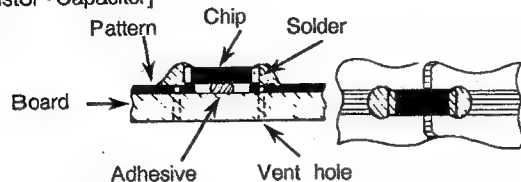
REPLACEMENT OF CHIP COMPONENTS

- CHIPS ARE NOT USED ON CERTAIN MODELS. REFER TO THE DESCRIPTIONS ON THIS PAGE ONLY WHEN WORKING ON MODELS ON WHICH CHIPS ARE EMPLOYED.

Replacement of the chip on printed circuit board can be performed easily as follows.

1 When mounted

[Resistor · Capacitor]

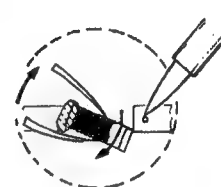
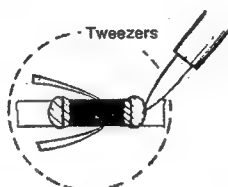
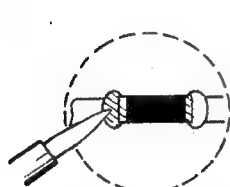


2 Removal of the chip

(1) Remove either of the soldered contacts.

(2) Hold the chip with tweezers and remove the other contact.

(3) Work the chip free from the adhesive with tweezers.

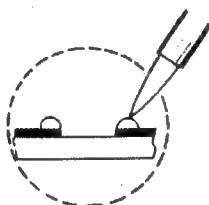


3 Preheating and soldering of chip pieces

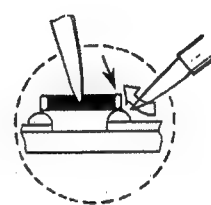
Be sure to preheat chip pieces (except the transistor) especially the capacitor before soldering with hot air, about 150°C (hair dryer or such can be used) for about 2 minutes. Then, immediately solder with an iron of about 30W.

4 Replacing the chip pieces

(1) Apply the solder to the board first.



(2) Hold the chip with tweezers and solder it in place, hold the iron at a 45° angle when soldering.

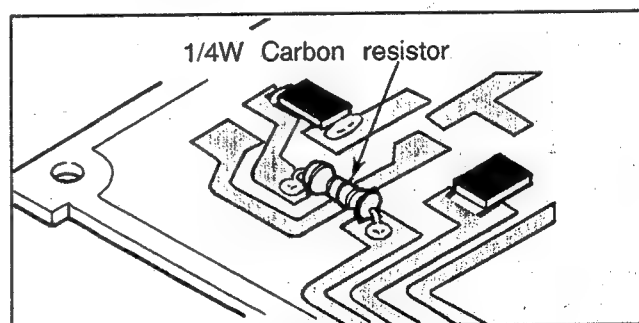


- Discrete parts can be substitutionally mounted as shown in the figure on the right.

Mounting is also possible by passing the wires from the board front side (parts side) through the chip soldering hole (vent hole of registration part).

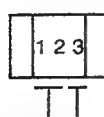
Substitute parts are as follows.

- Chip Metal Glaze Resistor
→ Carbon Resistor 1/4W ±5%
- Chip Ceramic Capacitor
→ Ceramic Capacitor 50V ±5%



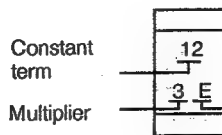
- Decoding of chip parts constant terms

< Chip Metal Glaze Resistor >



Constant Multiplier term
 $12 \times 10^3 = 12000\Omega$
 $= 12k\Omega$

< Chip Ceramic Capacitor >



Constant term
Multiplier

$12 \times 10^3 = 12000pF$
 $= 0.012\mu F$

K, M, Z, P Tolerance of ordinary type

C, P, R, S, T, U Temperature coefficient of temperature compensation type

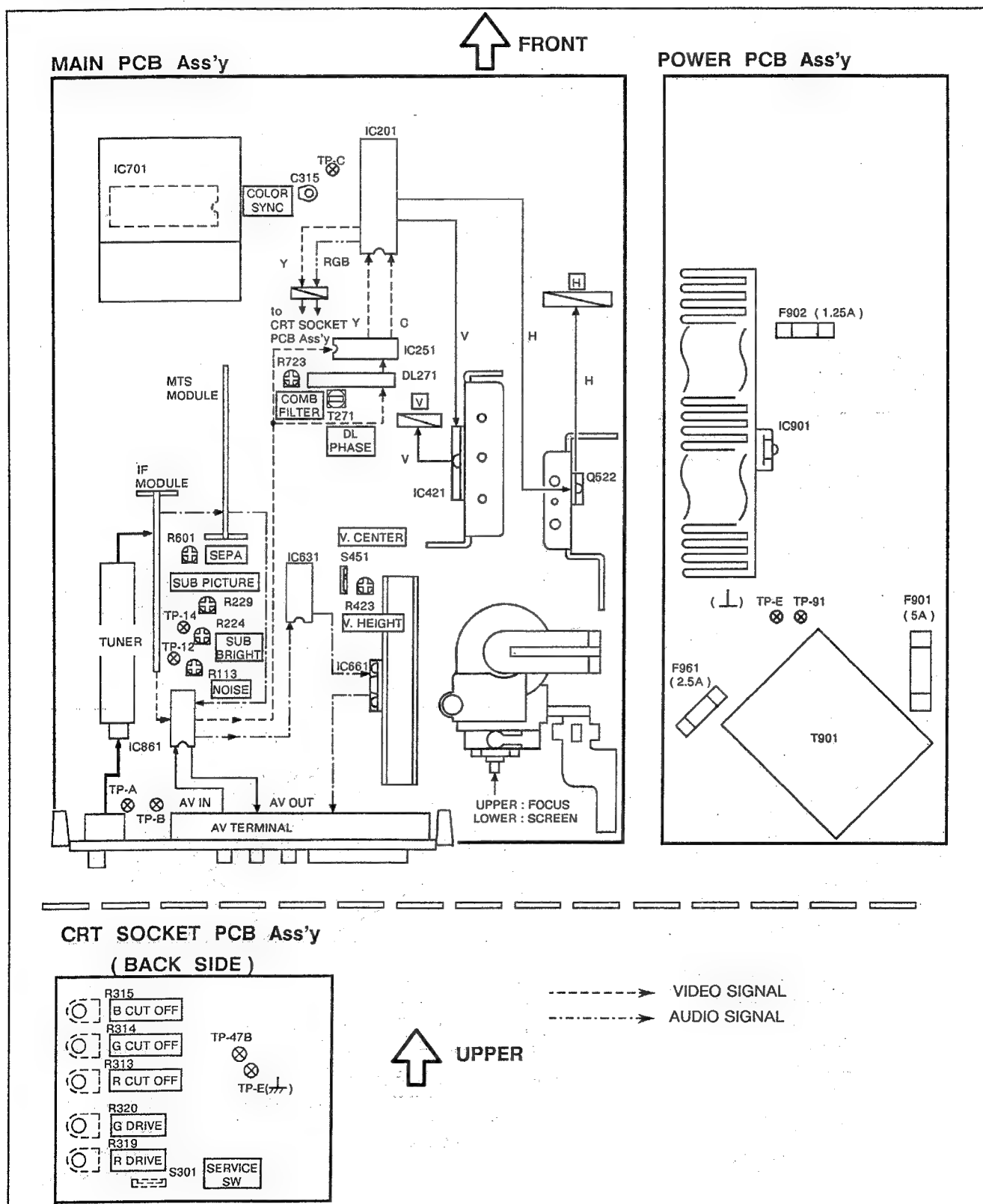
SERVICE ADJUSTMENTS

MEASURING INSTRUMENTS

- DC VOLTMETER
- PATTERN GENERATOR

- TV MULTICHANNEL SOUND GENERATOR

ALIGNMENT LOCATION



ADJUSTMENT

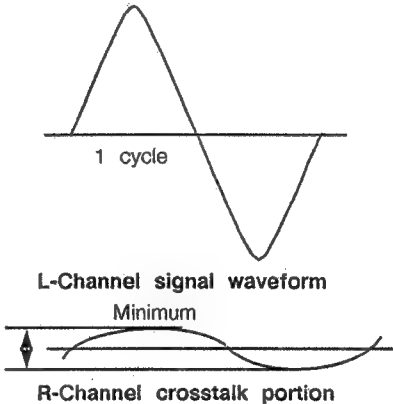
Item	Measuring instrument	Test point	Adjustment part	Description
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POWER CIRCUIT

B1 POWER SUPPLY	DC VOLTEMETER	TP-91 TP-E (⊥)		1. Confirm that the voltage between TP-91 and TP-E (⊥) is DC 130 V.
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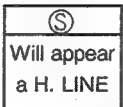


MAIN CIRCUIT

NOISE (RF. AGC)			NOISE VR	<ol style="list-style-type: none"> 1. Adjust the NOISE VR so that the noise appears in the image. 2. Next turn the NOISE VR in a direction that the noise disappears from the image and stop at the point where the noise has disappeared from the image. 3. Turn to another channel and confirm that there are no abnormalities.
SUB BRIGHT			SUB BRIGHT VR	<ol style="list-style-type: none"> 1. Press the remote control reset button twice to set the brightness to the standard level. 2. Adjustment of SUB BRIGHT VR to optimum brightness. <p>* Avoid excessive brightness</p>
SUB PICTURE			SUB PICTURE VR	<ol style="list-style-type: none"> 1. Press the remote control reset button twice to set the picture to the standard level. 2. Adjust the SUB PICTURE VR to the optimum picture.
COLOR SYNCHRONIZATION	PATTERN GENERATOR	IC201 Pin ⑤ } Pin ④ Pin ③ }	COLOR SYNCHRONIZATION	<ol style="list-style-type: none"> 1. Receive the color bar signal image. 2. Connect pins ⑤ and ③ of IC201 to pin ④ (+9V). 3. Adjust the COLOR SYNCHRONIZATION to obtain color synchronization. 4. Remove the connections and check that the color synchronization does not deteriorate on any of the channels.
COMB FILTER	PATTERN GENERATOR	IC251 PIN ⑫	DL P TRANSF. COMB FILTER VR	<ol style="list-style-type: none"> 1. Receive the color bar signal image. 2. Connect the oscilloscope to pin ⑫ of IC251. Magnify the chrome signal portions of the color bar waveform so that the 3.58 MHz elements become easy to observe. 3. Adjust DLP Transf. (T271), and minimize the 3.58MHz elements. 4. Regulate the COMB FILTER adjustment VR (R273) to further minimize the 3.58MHz elements. 5. Repeat steps 3 and 4 to fully minimize the 3.58MHz elements. <div data-bbox="949 1545 1340 1881"> </div>
VERTICAL HEIGHT	PATTERN GENERATOR		VERTICAL HEIGHT VR	<ol style="list-style-type: none"> 1. Receive a picture that enables vertical symmetry to be checked. 2. Using the VERTICAL HEIGHT VR, reduce the picture vertically. 3. Upon adjusting with the VERTICAL HEIGHT VR, return the picture to normal vertically.


Item	Measuring instrument	Test point	Adjustment part	Description
VERTICAL CENTER			VERTICAL CENTER SWITCH	1. Switching the VERTICAL CENTER SWITCH back and forth will allow you to move the screen position either upward or downward.
FOCUS			FOCUS VR	1. Adjust the FOCUS VR to obtain clear pictures. 2. Check that pictures have been adjusted to optimum appearance in both central and peripheral areas of the screen.
SEPARATION	TV MULTI-CHANNEL SOUND GENERATOR	AUDIO OUTPUT L, R	SEPARATION VR	1. Set the TV multichannel sound signal generator for generating stereo signal and output signal of about 3KHz from the left channel. 2. Connect an oscilloscope to the "L" output and obtain a clear view of 1- cycle portion of 3KHz waveforms. 3. Change connection of the oscilloscope to the "R" output and expand the voltage axis. 4. Adjust the SEPARATION VR and minimize the 3KHz crosstalk portion. <div></div>

NOTE : Do not touch the VRs inside the MULTICHANNEL SOUND CIRCUIT.

CRT SOCKET CIRCUIT

HORIZON-TAL LINE			SERVICE SWITCH	1. Turning the SERVICE SWITCH from the N side to the S side will bring the horizontal line display to the screen. <div><div><p>Will appear a H. LINE</p></div><div></div><div><div><p>Normal pictuer</p></div></div></div>
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HOW TO CHECK THE HIGH VOLTAGE HOLD DOWN CIRCUIT

1. High voltage hold down circuit.
After repair of the high voltage hold down circuit shown in Fig. 1, this circuit shall be checked to operate collectly.
2. Checking method of the high voltage hold down circuit.
(1) Make the short circuit across R905, 330Ω 15W UNF R (shown in Fig. 2, ) under normal operating condition.
(2) Confirm the picture goes out.

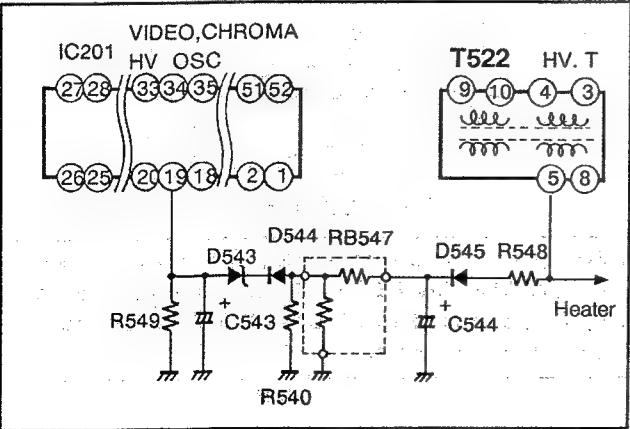


Fig. 1

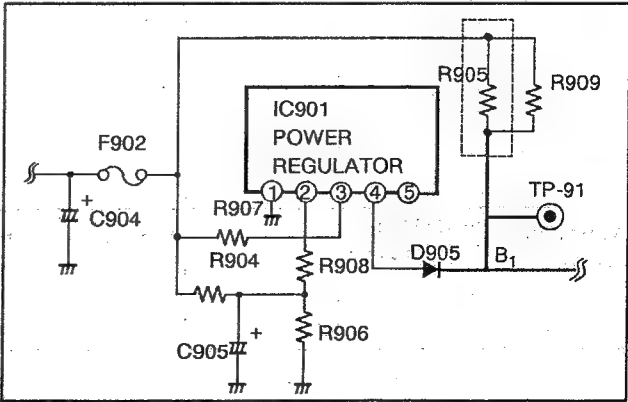


Fig. 2

PURITY, CONVERGENCE AND WHITE BALANCE

* The locations of SERVICE SWITCH, SCREEN VR, CUT-OFF VR and DRIVE VR are described in the ALIGNMENT LOCATION of SERVICE ADJUSTMENT or the SCHEMATIC DIAGRAM.

PICTURE TUBE

The picture tube is a precision in-line gun type. For this picture tube, dynamic convergence is carried out by a precision deflection yoke which eliminated the use of convergence yoke and convergence circuit. The adjustment of picture tube is therefore made easier as only the adjustment of static convergence by using a magnetic is enough. The deflection yoke and purity/convergence magnets assembly has been set at the factory and requires no field adjustments. However, should the assembly be accidentally jarred or tampered with, some or all adjustments may be necessary.

COLOR PURITY & VERTICAL CENTER

Loosen yoke retaining screw (Fig. B-1). With a sharp knife cut between the picture tube and the wedge. Remove wedges completely and clean off dried adhesive from the picture tube. PAINT is used to lock the tabs of the purity/convergence magnet assembly in place (Fig. B-1). The paint must be removed with the end of a screwdriver before any adjustments are attempted.

(As to models equipped with a magnet locking ring, beforehand loosen it.)

1. Select no signal UHF channel. (or Display a monochrome pattern)
2. Let the purity tabs come in line horizontally as is shown in Fig. B-2. A long tab should be in the same direction as the other short tab.
3. Move the yoke slowly backward.
4. Turn the GREEN CUT-OFF VR to maximum and the RED and BLUE CUT-OFF VRs to minimum. Then adjust the SCREEN VR so that the green band can be seen best. (Fig. B-3)
5. Rotate the two tabs in the opposite directions and with them kept at an angle, together in either direction so that the green band is centered on the picture tube.
6. Check the vertical center position by displaying a horizontal line. (Select the CUT-OFF SERVICE SWITCH from N to S and a HORIZONTAL LINE will appear.) Unless correct, bring it to the nearest center by rotating the two tabs, kept at an angle, together in either direction. (Fig. B-4)
7. Repeat steps 5 and 6 alternately until the green band and the vertical center come to the center.
8. Move the yoke slowly towards the bell of the tube so that the whole surface of the picture tube is filled with a green pure raster.
9. Turning RED or BLUE CUT-OFF VR to maximum and GREEN CUT-OFF VR to minimum, make sure of a red or blue pure raster.
10. Secure yoke retaining screw (do not install wedges at this time) .

(As to models equipped with a magnet locking ring, secure it and keep six magnets from moving even if it is touched slightly.)

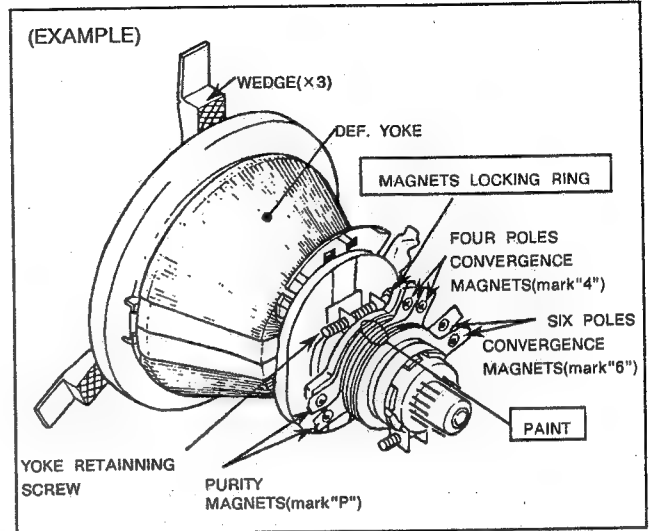


Fig.B-1

(REAR VIEW)

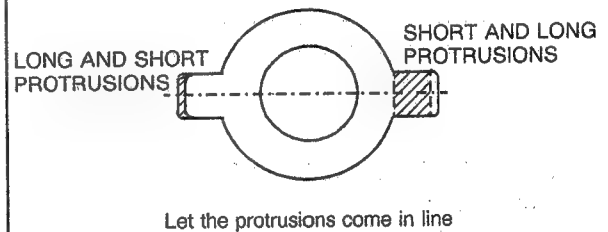


Fig.B-2

(FRONT VIEW)

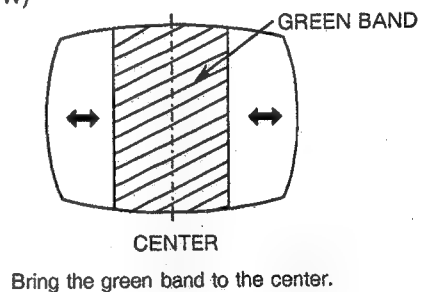


Fig.B-3

(FRONT VIEW)

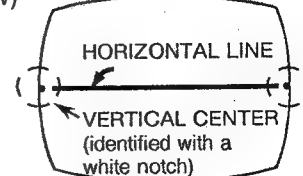


Fig.B-4

STATIC CONVERGENCE & DYNAMIC CONVERGENCE

1. Connect a crosshatch generator to the input terminals and adjust BRIGHTNESS and CONTRAST control for a distinct pattern.
2. Adjust the convergence around the edges of the picture tube by tilting the yoke, up-down and left-right, and temporarily install one wedge at the top of the yoke. (Fig. B-7, 8, 9)
3. Rotate the front pair of tabs (four pole convergence magnet) as a unit to minimize the separation of the red and blue lines around the center of the screen. To adjust the convergence of red and blue, vary the angle between the tabs (Fig. B-5)
4. Rotate the rear pair of tabs (six pole convergence magnets) as a unit to minimize the separation of the magenta (R/B) and green lines. (Fig. B-6)
5. Adjust the spacing of the rear tabs to converge the magenta and green lines.
6. Apply paint to fix six magnets.
7. Remove the wedge installed temporarily on the yoke.
8. Tilting the angle of the yoke up, down and sideways, and adjust the yoke so as to obtain the circumference convergence. (Fig. B-8, 9)
9. Insert wedges to the position as shown in Fig. B-10 to obtain the best circumference convergence.
10. Wedge has a backing of double sided adhesive tape. Therefore, tear off one side of adhesive tape, and fix the wedges.
11. White balance adjustment (Black & White tracking) can now be performed.

WHITE BALANCE ADJUSTMENT

(Black and White Tracking)

1. Display a monochrome pattern.
2. Set the RED and GREEN DRIVE VRs for their mechanical center.
3. Turn the RED, GREEN and BLUE CUT-OFF VRs and the SCREEN VR fully counterclockwise.
4. Display a horizontal line. (Select the CUT-OFF SERVICE SWITCH from N to S and a HORIZONTAL LINE will appear.)
5. Turn SCREEN VR slowly clockwise until a very faint horizontal line appears.
6. Turn the CUT-OFF VR of the color which has appeared first, clockwise by about 10° and then adjust the SCREEN VR again so that the color may shine faintly.
7. Turn the other color CUT-OFF VRs slowly clockwise until a reasonable white line appears.
8. Return the monochrome pattern. (When returning a monochrome pattern select the CUT-OFF SERVICE SWITCH from S to N and a monochrome pattern will appear.)
9. Adjust the RED and GREEN DRIVE VRs for best white highlights.

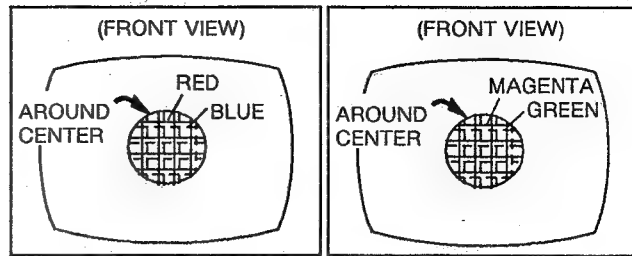


Fig.B-5

Fig.B-6

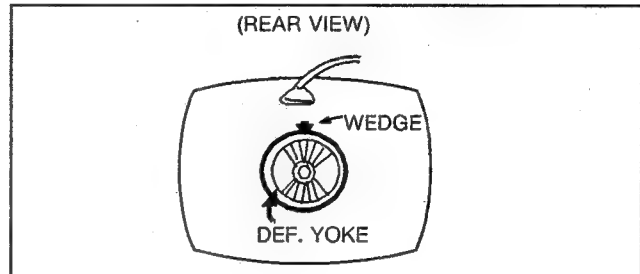


Fig.B-7

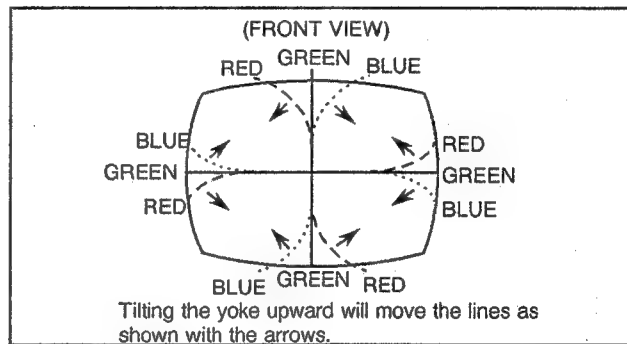


Fig.B-8

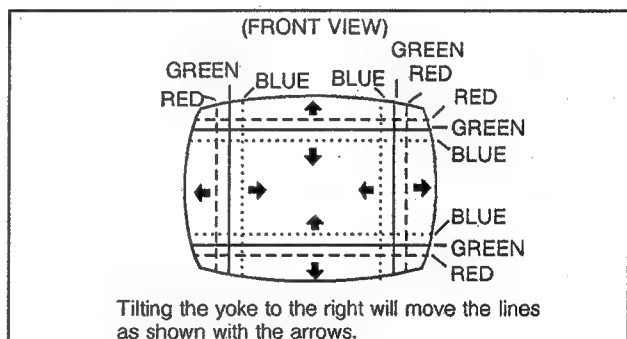


Fig.B-9

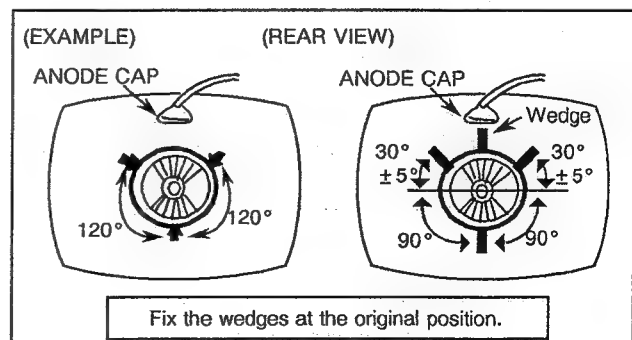


Fig.B-10

PARTS LIST

CAUTION

- The parts marked \triangle are very important for the safety. When replacing these parts, be sure to use specified ones to secure the safety and performance.
- The module circuit board is supplied together with the assembly, but the parts which do not have the drawing in this Parts List, P. C. Board Ass'y and the Parts No. columns of which are filled with lines — . will not be supplied.
- As a rule, the resistors and capacitors which are indicated as shown in (NOTE 2) "HOW TO EXPRESS PARTS NUMBERS OF STANDARD PARTS" are not shown in the list of the parts on the board.
When ordering the service parts, confirm the resistance/rated power, capacitance/rated voltage, and type of the parts, then order by the part No. indicated according to (NOTE 2).

(NOTE 1) ABBREVIATIONS OF RESISTORS, CAPACITORS AND TOLERANCES

RESISTORS		CAPACITORS	
C R	Carbon Resistor	C CAP.	Ceramic Capacitor
F R	Fusible Resistor	E CAP.	Electrolytic Capacitor
P R	Plate Resistor	M CAP.	Mylar Capacitor
V R	Variable Resistor	HV CAP.	High Voltage Capacitor
HV R	High Voltage Resistor	MF CAP.	Metalized Film Capacitor
MF R	Metal Film Resistor	MM CAP.	Metalized Mylar Capacitor
MG R	Metal Glazed Resistor	MP CAP.	Metalized Polystyrol Capacitor
MP R	Metal Plate Resistor	PP CAP.	Polypropylene Capacitor
OM R	Metal Oxide Film Resistor	PS CAP.	Polystyrol Capacitor
CMF R	Coating Metal Film Resistor	TF CAP.	Thin Film Capacitor
UNF R	Non-Flammable Resistor	MPP CAP.	Metalized Polypropylene Capacitor
CH V R	Chip Variable Resistor	TAN. CAP.	Tantalum Capacitor
CH MG R	Chip Metal Glazed Resistor	CH C CAP.	Chip Ceramic Capacitor
COMP. R	Composition Resistor	BP E CAP.	Bi-Polar Electrolytic Capacitor
LPTC R	Linear Positive Temperature Coefficient Resistor	CH AL E CAP.	Chip Aluminum Electrolytic Capacitor
		CH AL BP CAP.	Chip Aluminum Bi-Polar Capacitor
		CH TAN. E CAP.	Chip Tantalum Electrolytic Capacitor
		CH AL BP E CAP.	Chip Tantalum Bi-Polar Electrolytic Capacitor

TOLERANCES									
F	G	J	K	M	N	R	H	Z	P
$\pm 1\%$	$\pm 2\%$	$\pm 5\%$	$\pm 10\%$	$\pm 20\%$	$\pm 30\%$	+30% - 10%	+50% - 10%	+80% - 20%	+100% - 0%

(NOTE 2) HOW TO EXPRESS PARTS NUMBERS OF STANDARD PARTS

■ RESISTOR

Q R

Kind

Rated Power

Shape

Tolerance

Resistance

Symbol	Part Name
C	COMP.R
D	C R
S	CH MG R

Symbol	Rated Power
0 1	1 w
1 2	1/2 w
1 4	1/4 w
1 6	1/6 w
1 8	1/8 w

Symbol	Shape
1	Straight lead
8	Chip

Indicate with first two-figure expressed by Ω and following 0.
please note that,in case of resistance less than 10 Ω, a letter "R" will be effective as point.

EX.

2.2 Ω = 2R2

470 Ω = 47 × 10¹ → 471

150kΩ = 15 × 10⁴ → 154

■ CAPACITOR

Q

Kind

Shape

Rated Voltage

Tolerance

Capacitance

Symbol	Part Name
CS	C CAP.
CS	CH C CAP.
ET	E CAP.
FM	M CAP.

	5Figure	0	1	2
	6Figure			
A			10V	100V
C			16V	160V
D				200V
E			25V	250V
H			50V	500V
J		6.3V	63V	
V			35V	

Indicate with first two-figure expressed by pF and following 0.
Please note that,in case of capacitance less than 10 pF a letter "R" will be effective as point.

EX

5pF = 5R0

1000pF = 10 × 10² → 102

47μF = 47 × 10⁶ → 476

Symbol	Shape
1	Straight lead
1	Leads in the same direction
8	Chip
A	Leads in the same direction (compact part)

MAIN PARTS LIST

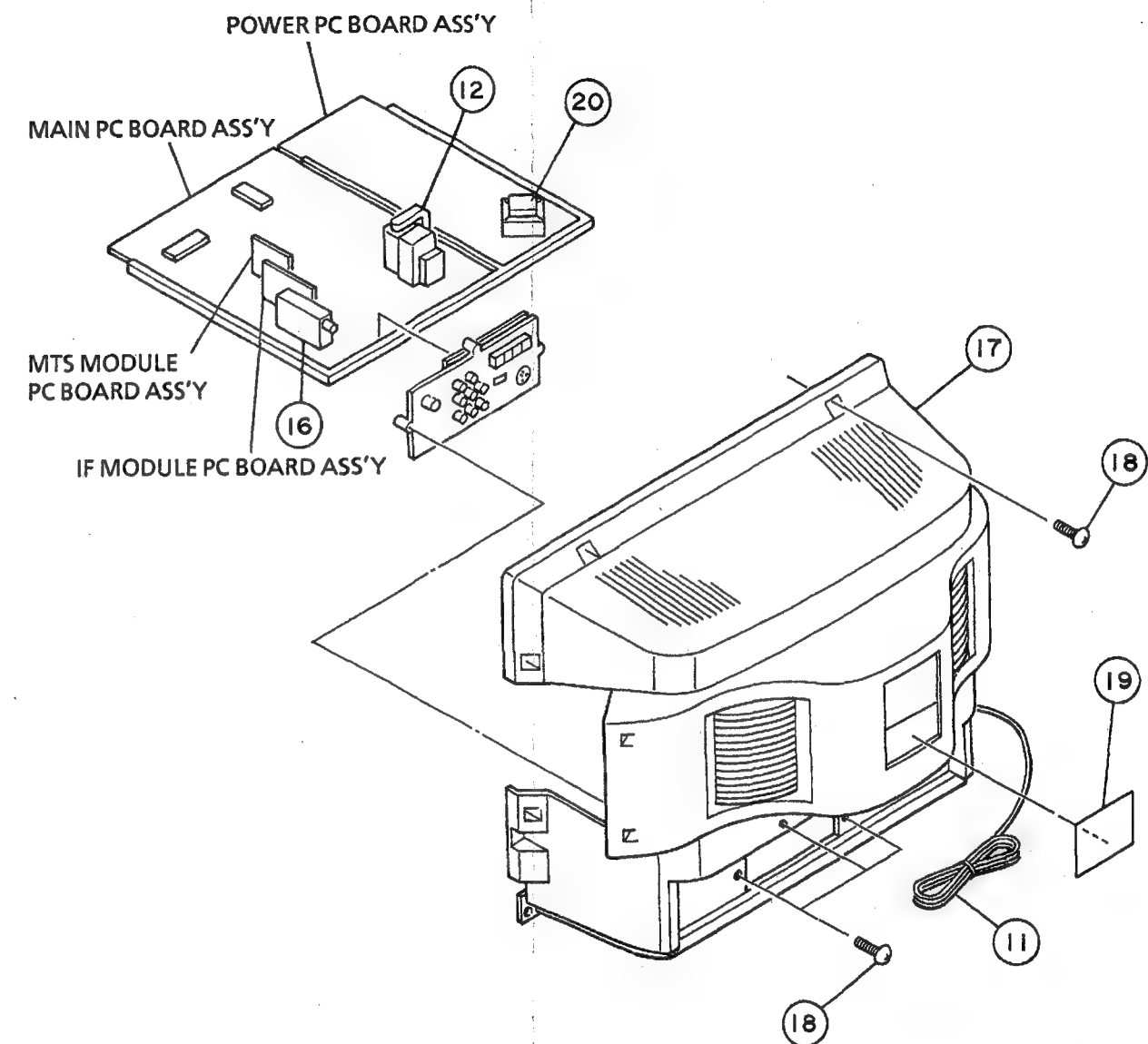
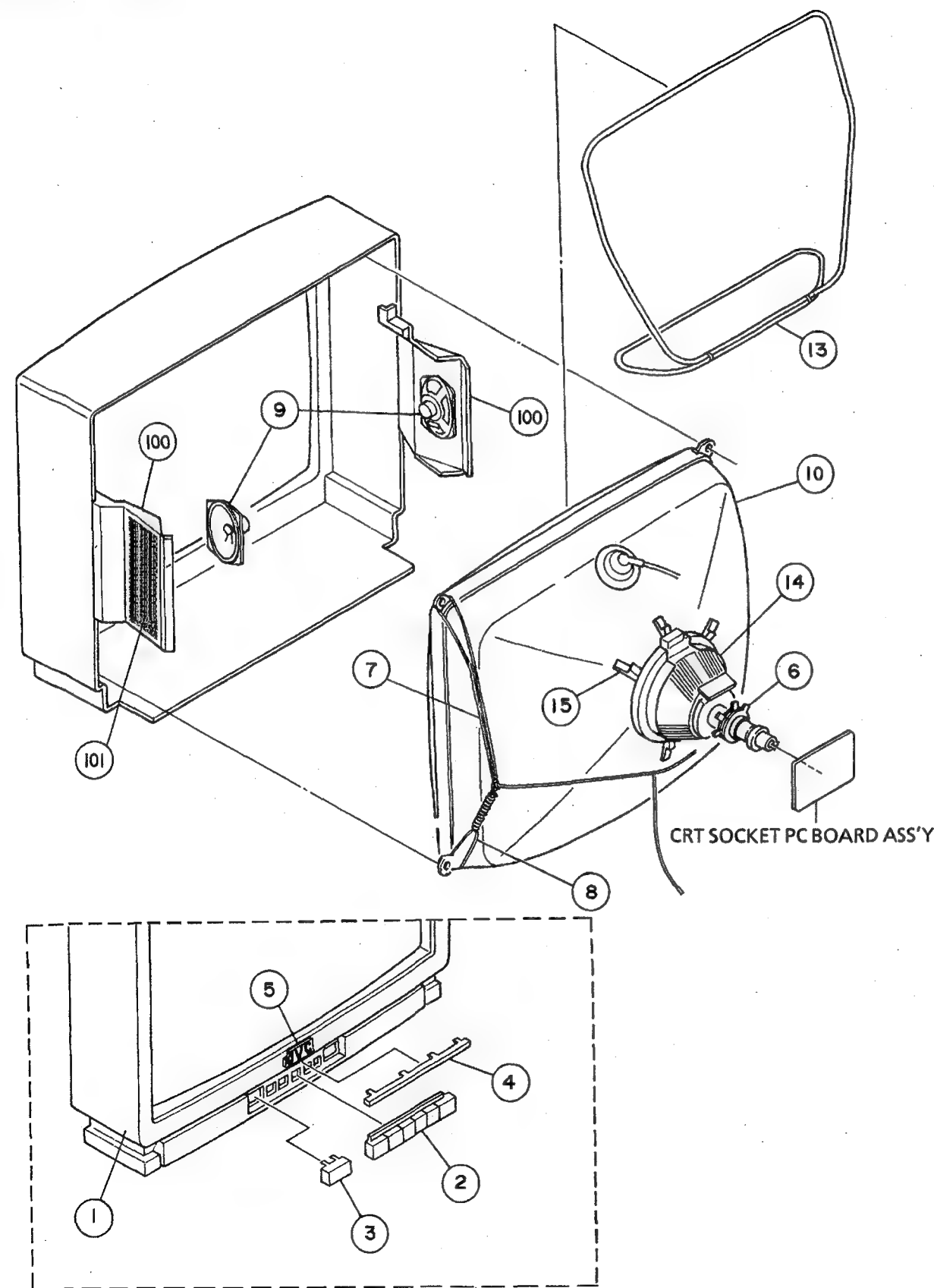
SYMBOL NO.	△	PART NO.	PART NAME	REMARKS
CRT & TUNER				
		A75034-B	P&C MAGNET	
		CE41596-00AJ1	WEDGE ASSY	X4 *
	△	CE20179-00AKJ1	DEF YOKE	DY01 *
	△	CE41329-00CJ2	DEG COIL	L01 *
	△	AN3181EL-B01	TUNER	TU1701 *
	△	MVA68AEC00X	PICTURE TUBE	V01 *
VARIABLE R				
R1113		QVPE610-203H	V R (NOISE)	20kΩ B
R1224		QVPA601-103A	V R (BRIGHT)	10kΩ B
R1229		QVPE610-103H	V R (PICTURE)	10kΩ B
R1273		QVPA601-471A	V R (COMB LEVEL)	470 Ω B
R1423		QVPE610-503H	V R (V HEIGHT)	50kΩ B
R1601		QVPE610-103H	V R (SEPARATION)	10kΩ B
R3313		QVPA803-502M	V R (R CUT OFF)	5kΩ B
R3314		QVPA803-502M	V R (G CUT OFF)	5kΩ B
R3315		QVPA803-502M	V R (B CUT OFF)	5kΩ B
R3319		QVPA803-201M	V R (R DRIVE)	200 Ω B
R3320		QVPA803-201M	V R (G DRIVE)	200 Ω B
TRANSFORMER				
T1521	△	CE30147-001	POWER TRANSF.	T01
	△	CE40361-00E	DRIVE TRANSF.	
	△	CE41735-00A-KD	H. V. TRANSF	T1522
DIODE				
D1001		MA4330 (L) -T2	ZENER DIODE	
D1253		RD13JS (B) -T2	ZENER DIODE	
D1254		RD13JS (B) -T2	ZENER DIODE	
D1255		RD13JS (B) -T2	ZENER DIODE	
D1309		RD4. 7E (B2)	ZENER DIODE	
D1424		RD5. 1ES (B3) -T2	ZENER DIODE	
D1425	△	05AZ75-T5	ZENER DIODE	
D1512		RD12E (B1)	ZENER DIODE	
D1543	△	MA4068 (N) C1-T2	ZENER DIODE	
D1601		MA4100 (M) -T2	ZENER DIODE	
D1711		MA4051 (H) -T2	ZENER DIODE	
D1715		GL-5HD23	L. E. D.	Power Indicator
D1794		MA4062 (H) -T2	ZENER DIODE	
D1861		MA4120 (M) -T2	ZENER DIODE	
D1862		MA4120 (M) -T2	ZENER DIODE	
D9961	△	S4VB10	SI DIODE STACK	
D9963		RD16E (B3)	ZENER DIODE.	
TRANSISTOR				
Q1522	△	2SD1555-LB	SI. TRANSISTOR	H. Out or 2SD1427-LB
IC				
IC1001		TA78L005AP	I. C.	
IC1201		VC2024Z	I. C.	
IC1202		AN7809F	I. C.	
IC1251		M52005P	I. C. (M)	
IC1421	△	TA8432K	I. C.	
IC1611		M5218L	I. C.	
IC1631		TDA1526	I. C.	
IC1661	△	TA8200AH	I. C. (M)	
IC1701		MN152121JMT4	I. C.	
IC1702		MN1280-K	I. C. (M)	
IC1831		MN12C201D	I. C. (M)	
IC1841		QH3091	IR DETECT UNIT	
IC1861		M51320P	I. C. (M)	

SYMBOL NO.	△	PART NO.	PART NAME	REMARKS
IC IC9901	△	STR30130-A	I. C. (H)	
OTHERS		SGX-A001A-MU2 SGX-F001A CM11579-A0B-MA CM33706-B0A-KD CM33719-00C-V0	MTS MODULE PC BO IF MODULE PC BOR FRONT CABINET AS PUSH KNOB ASSY ANT TERM ASSY	(AV-2750S) *
	△	CM34663-A0A-V0 QMP14C0-220J3 CM11548-001-MA CM11579-A0C-MA CE40907-B01	SP GRILL ASSY POWER CORD REAR COVER FRONT CABINET AS 1H DELAY LINE	X2 (AV-2760S) **
DL1271				
F9901	△	QMF66U1-5R0S	FUSE	5.0A
F9902	△	QMF53U1-1R25S	FUSE	1.25A
F9961	△	QMF53U1-2R5S	FUSE	2.5A
LF9901	△	CE40247-00A	LINE FILTER	
RY9901	△	CESK002-001	RELAY	
		EAS-12D116D-KD	CONE SPEAKER	X2 SP01.02
S1401		QSL4A13-C02	LEVER SWITCH	V. Center
S1701		QSP4H11-C03	PUSH SWITCH	Function
S1702		QSP4H11-C03	PUSH SWITCH	Down
S1703		QSP4H11-C03	PUSH SWITCH	Up
S1704		QSP4H11-C03	PUSH SWITCH	Power
S1705		QSP4H11-C03	PUSH SWITCH	Vol△
S1706		QSP4H11-C03	PUSH SWITCH	Vol▽
S3301		QSL4A13-C02	LEVER SWITCH	Service SW
TH9901	△	CE40595-001	TH POSISTOR	or CE40595-001T
X1301		A76351-D	CRYSTAL	or CE40668-001

EXPLODED VIEW PARTS LIST

SYMBOL NO.	PART NO.	PART NAME	REMARKS
1	CM11579-A0B-MA	FRONT CABINET AS	(AV-2750S) *
1	CM11579-A0C-MA	FRONT CABINET AS	(AV-2760S) *
2	CM33706-B0A-KD	PUSH KNOB ASSY	
3	CM45810-A01-V0	REMOCON WINDOW	
4	CM33705-003-V0	KNOB HOLDER	
5	CM43094-002	JVC MARK	
6	A75034-B	P&C MAGNET	
7	CH30392-00A	BRAIDED ASSY	
8	CH43109-00A	BRAIDED SUB ASSY	
9	EAS-12D116D-KD	CONE SPEAKER	X2 SP01.02
△ 10	MVA68AEC00X	PICTURE TUBE	V01 *
△ 11	QMP14C0-220J3	POWER CORD	**
△ 12	CE41735-00A-KD	H. V. TRANSF	T1522
△ 13	CE41329-00CJ2	DEG COIL	L01 *
△ 14	CE20179-00AKJ1	DEF YOKE	DY01 *
15	CE41596-00AJ1	WEDGE ASSY	X4 *
△ 16	AN3181EL-B01	TUNER	TU1701 *
17	CM11548-001-MA	REAR COVER	**
18	GBSB4016N	W TAP SCREW	X11 *
19	CM44889-001-A	RATING LABEL	*
△ 20	CE30147-001	POWER TRANSF.	T01
100	CM34663-A0A-V0	SP GRILL ASSY	X2 Include No. 101
101	CM34664-001	PANCHING METAL	X2

EXPLODE VIEW



PRINTED CIRCUIT BOARD PARTS LIST
MAIN PC BOARD Ass'y (SGX1004A(H1))

SYMBOL NO.	PART NO.	PART NAME	REMARKS
VARIABLE R			
R1113	QVPE610-203H	V R (NOISE)	20kΩ B
R1224	QVPA601-103A	V R (BRIGHT)	10kΩ B
R1229	QVPE610-103H	V R (PICTURE)	10kΩ B
R1273	QVPA601-471A	V R (COMB LEVEL)	470 Ω B
R1423	QVPE610-503H	V R (V HEIGHT)	50kΩ B
R1601	QVPE610-103H	V R (SEPARATION)	10kΩ B
RESISTOR			
RB1547	CJ39622-00A	R BLOCK	
R1001	QRD149J-100S	C R	10 Ω 1/4W J
R1295	QRD123J-391SX	C R	390 Ω 1/2W J
R1296	QRD149J-150S	C R	15 Ω 1/4W J
R1424	QRX019J-1R2S	MF R	1.2 Ω 1W J
R1429	QRD161J-4R7Y	C R	4.7 Ω 1/6W J
R1430	QRC121K-561Z	COMP. R	560 Ω 1/2W K
R1432	QRD121J-821SY	C R	820 Ω 1/2W J
R1525	QRG029J-1.01A	OM R	100 Ω 2W J
R1528	QRG019J-391S	OM R	390 Ω 1W J
R1531	QRX029J-2R7A	MF R	2.7 Ω 2W J
R1532	QRX039J-2R7A	MF R	2.7 Ω 2W J
R1534	QRX039J-2R2A	MF R	2.2 Ω 3W J
R1535	QRX039J-3R3A	MF R	3.3 Ω 3W J
R1536	QRD149J-1R0S	C R	1.0 Ω 1/4W J
R1537	QRD161J-393Y	C R	39kΩ 1/6W J
R1538	QRD161J-393Y	C R	39kΩ 1/6W J
R1545	QRG019J-152S	OM R	1.5kΩ 1W J
R1546	QRG029J-680A	OM R	68 Ω 2W J
R1548	QRD121J-4R7SY	C R	4.7 Ω 1/2W J
R1549	QRD161J-273Y	C R	27kΩ 1/6W J
R1603	ERZ-C03DK820	Z N R	
R1604	ERZ-C03DK820	Z N R	
R1667	QRD161J-2R2Y	C R	2.2 Ω 1/6W J
R1668	QRD161J-2R2Y	C R	2.2 Ω 1/6W J
R1793	QRD141J-271SY	C R	270 Ω 1/4W J
R1923	QRD161J-332Y	C R	3.3kΩ 1/6W J
R1924	QRD121J-153SY	C R	15kΩ 1/2W J
R1925	QRG019J-101S	OM R	100 Ω 1W J
R1929	QRD121J-680SY	C R	68 Ω 1/2W J
R1999	QRC121K-275EZ	COMP. R	2.7MΩ 1/2W K
CAPACITOR			
C1002	QEM61EK-106MZ	E CAP.	10μF 25V K
C1003	QEM41CM-477M	E CAP.	470μF 16V M
C1015	QEM61EK-106MZ	E CAP.	10μF 25V K
C1017	QEM61EK-106MZ	E CAP.	10μF 25V K
C1111	QEK51HM-104GM	E CAP.	0.1μF 50V M
C1201	QEN61HM-335Z	BP E CAP.	3.3μF 50V M
C1315	QAT3110-100A	TRIM CAP.	10pF 100V
C1316	QEN61HM-225Z	BP E CAP.	2.2μF 50V M
C1403	QEN61HM-105Z	BP E CAP.	1μF 50V M
C1421	QEH1CM-107MZ	E CAP.	100μF 16V M
C1422	QFV81HJ-105M	TF CAP.	1μF 50V J
C1424	QFV71HJ-394MZ	TF CAP.	0.39μF 50V J
C1426	QEH1CM-107MZ	E CAP.	100μF 35V M
C1502	QEN61HM-105Z	BP E CAP.	1μF 50V M
C1513	QEN51HM-105	BP E CAP.	1μF 50V M
C1523	QFM71HK-822MZ	M CAP.	8200pF 50V K
C1524	QFZ0081-7001S	MPP CAP.	7000pF 1600V ±3%
C1525	QFZ0081-6201S	MPP CAP.	6200pF 1600V ±3%

SYMBOL NO.	PART NO.	PART NAME	REMARKS
CAPACITOR			
C1526	QFZ0113-354S	MPP CAP.	0.35μF 200V J
C1530	QE20099-227M	E CAP.	220μF 160V R
C1534	QETB1VM-228	E CAP.	2200μF 35V M
C1536	QET62ER-106Z	E CAP.	10μF 250V R
C1537	QFM71HK-103MZ	M CAP.	0.01μF 50V K
C1543	QETC1CM-107Z	E CAP.	100μF 16V M
C1544	QETC1VM-107Z	E CAP.	100μF 35V M
C1631	QEN61CM-106Z	BP E CAP.	10μF 16V M
C1632	QEN61CM-106Z	BP E CAP.	10μF 16V M
C1635	QFV71HJ-224MZ	TF CAP.	0.22μF 50V J
C1636	QFV71HJ-563MZ	TF CAP.	0.056μF 50V J
C1646	QFV71HJ-563MZ	TF CAP.	0.056μF 50V J
C1661	QEN61CM-106Z	BP E CAP.	10μF 16V M
C1662	QEN61CM-106Z	BP E CAP.	10μF 16V M
C1669	QETB1HM-108	E CAP.	1000μF 50V M
C1670	QFV71HJ-124MZ	TF CAP.	0.12μF 50V J
C1671	QFV71HJ-124MZ	TF CAP.	0.12μF 50V J
C1672	QETC1CM-108Z	E CAP.	1000μF 16V M
C1673	QETB1CM-108	E CAP.	1000μF 16V M
C1869	QEN61CM-106Z	BP E CAP.	10μF 16V M
C1871	QEK1HM-105GMZ	E CAP.	1μF 50V M
C1872	QEN61CM-106Z	BP E CAP.	10μF 16V M
C1874	QEK1CM-336MZ	E CAP.	33μF 16V M
C1998	QCZ9029-103M	C CAP.	0.01μFAC125V M
C1999	QCZ9029-103M	C CAP.	0.01μFAC125V M
TRANSFORMER			
T1271	CE40176-001	DL P TRANSF.	
T1521	CE40361-00E	DRIVE TRANSF.	
COIL			
L1201	A76186-82	PEAKING COIL	82μH
L1271	A76186-22Z	PEAKING COIL	22μH
L1272	CE40041-5R6Z	PEAKING COIL	5.6μH
L1401	A76186-560	PEAKING COIL	560μH
L1523	CE41124-00A	LINARIITY COIL	
L1527	CE41169-002	PEAKING COIL	
L1528	CE41169-002	PEAKING COIL	
L1702	CE40041-220Z	PEAKING COIL	22μH
L1831	A76186-1.0Z	PEAKING COIL	1.0μH
DIODE			
D1001	MA4330 (L) -T2	ZENER DIODE	
D1241	MA165-T2	SI. DIODE	
D1242	MA165-T2	SI. DIODE	
D1243	MA165	SI. DIODE	
D1252	MA165-T2	SI. DIODE	
D1253	RD13JS (B) -T2	ZENER DIODE	
D1254	RD13JS (B) -T2	ZENER DIODE	
D1255	RD13JS (B) -T2	ZENER DIODE	
D1291	MA165-T2	SI. DIODE	
D1292	MA165-T2	SI. DIODE	
D1301	MA165-T2	SI. DIODE	
D1302	MA165-T2	SI. DIODE	
D1303	MA165-T2	SI. DIODE	
D1304	MA165-T2	SI. DIODE	
D1305	MA165-T2	SI. DIODE	
D1306	MA165-T2	SI. DIODE	
D1307	MA165-T2	SI. DIODE	
D1308	MA165	SI. DIODE	
D1309	RD4.7E (B2)	ZENER DIODE	

	SYMBOL NO.	PART NO.	PART NAME	REMARKS
	DIODE			
Δ	D1421	1SR35-100A-T2	SI. DIODE	
	D1424	RD5.1ES (B3) -T2	ZENER DIODE	
Δ	D1425	05AZ75-T5	ZENER DIODE	
	D1511	MA165-T2	SI. DIODE	
	D1512	RD12E (B1)	ZENER DIODE	
Δ	D1521	RU4DS-LFK2	SI. DIODE	
	D1531	RGP10J-T3	SI. DIODE	
Δ	D1532	RU3AM-LFB1	SI. DIODE	
Δ	D1534	RGP10J-T3	SI. DIODE	
Δ	D1536	RH1S-T3	SI. DIODE	
	D1542	1N4003-T3	SI. DIODE	
Δ	D1543	MA4068 (N) C1-T2	ZENER DIODE	
Δ	D1544	1SS81-T5	SI. DIODE	
Δ	D1545	1SS81-T5	SI. DIODE	
	D1601	MA4100 (M) -T2	ZENER DIODE	
	D1603	MA165-T2	SI. DIODE	
	D1641	MA165-T2	SI. DIODE	
	D1642	MA165-T2	SI. DIODE	
	D1643	MA165-T2	SI. DIODE	
	D1644	MA165-T2	SI. DIODE	
	D1645	MA165-T2	SI. DIODE	
	D1647	MA165-T2	SI. DIODE	
	D1711	MA4051 (H) -T2	ZENER DIODE	
	D1712	MA165-T2	SI. DIODE	
	D1713	MA165-T2	SI. DIODE	
	D1715	GL-5HD23	L. E. D.	Power Indicator
	D1720	MA165-T2	SI. DIODE	
	D1721	MA165-T2	SI. DIODE	
	D1722	MA165-T2	SI. DIODE	
	D1723	MA165-T2	SI. DIODE	
	D1724	MA165-T2	SI. DIODE	
	D1725	MA165-T2	SI. DIODE	
	D1731	MA165-T2	SI. DIODE	
	D1732	MA165-T2	SI. DIODE	
	D1736	MA165-T2	SI. DIODE	
	D1737	MA165-T2	SI. DIODE	
	D1777	MA165-T2	SI. DIODE	
	D1778	MA165-T2	SI. DIODE	
	D1794	MA4062 (H) -T2	ZENER DIODE	
	D1795	MA165-T2	SI. DIODE	
	D1796	MA165-T2	SI. DIODE	
	D1831	MA165-T2	SI. DIODE	
	D1861	MA4120 (M) -T2	ZENER DIODE	
	D1862	MA4120 (M) -T2	ZENER DIODE	
	D1901	MA165-T2	SI. DIODE	
	D1902	MA165-T2	SI. DIODE	
	D1921	MA165-T2	SI. DIODE	
	D1924	1N4003-T3	SI. DIODE	
	TRANSISTOR			
	Q1211	2SC1740 (QR) -T	SI. TRANSISTOR	
	Q1241	2SC1740 (QR) -T	SI. TRANSISTOR	
	Q1250	2SC1740 (QR) -T	SI. TRANSISTOR	
	Q1281	2SC1740 (QR) -T	SI. TRANSISTOR	
	Q1291	2SA933 (QR) -T	SI. TRANSISTOR	
	Q1292	2SC1740 (QR) -T	SI. TRANSISTOR	
	Q1293	2SA673 (C) -T	SI. TRANSISTOR	
	Q1421	2SC3311A (QR) -T	SI. TRANSISTOR	
	Q1422	2SC3311A (QR) -T	SI. TRANSISTOR	

SYMBOL NO.	PART NO.	PART NAME	REMARKS
TRANSISTOR			
Q1423	2SC1740 (QR) -T	SI. TRANSISTOR	H. Out or 2SD1427-LB
Q1521	2SC2655 (Y) -T	SI. TRANSISTOR	
Q1522	2SD1555-LB	SI. TRANSISTOR	
Q1524	2SC1740 (QR) -T	SI. TRANSISTOR	
Q1603	2SC1740 (QR) -T	SI. TRANSISTOR	
Q1604	2SC1740 (QR) -T	SI. TRANSISTOR	
Q1641	2SC1740 (QR) -T	SI. TRANSISTOR	
Q1642	2SA933 (QR) -T	SI. TRANSISTOR	
Q1651	2SC1740 (QR) -T	SI. TRANSISTOR	
Q1654	2SC1740 (QR) -T	SI. TRANSISTOR	
Q1655	2SA933 (QR) -T	SI. TRANSISTOR	
Q1656	2SC1740 (QR) -T	SI. TRANSISTOR	
Q1657	2SC1740 (QR) -T	SI. TRANSISTOR	
Q1701	2SC1740 (QR) -T	SI. TRANSISTOR	
Q1702	2SC1740 (QR) -T	SI. TRANSISTOR	
Q1703	2SA933 (QR) -T	SI. TRANSISTOR	
Q1704	2SA933 (QR) -T	SI. TRANSISTOR	
Q1741	2SC1740 (QR) -T	SI. TRANSISTOR	
Q1781	2SC1740 (QR) -T	SI. TRANSISTOR	
Q1782	2SC1740 (QR) -T	SI. TRANSISTOR	
Q1783	2SC1740 (QR) -T	SI. TRANSISTOR	
Q1791	2SC3619	SI. TRANSISTOR	
Q1795	2SA933 (QR) -T	SI. TRANSISTOR	
Q1861	2SC1740 (QR) -T	SI. TRANSISTOR	
Q1862	2SC1740 (QR) -T	SI. TRANSISTOR	
Q1863	2SC2878 (B) -T	SI. TRANSISTER	
Q1864	2SA933 (QR) -T	SI. TRANSISTOR	
Q1865	2SC2878 (B) -T	SI. TRANSISTER	
Q1901	2SC1740 (QR) -T	SI. TRANSISTOR	
Q1902	2SC1740 (QR) -T	SI. TRANSISTOR	
Q1903	2SC1740 (QR) -T	SI. TRANSISTOR	
Q1921	2SC1959 (Y) -T	SI. TRANSISTER	
Q1922	2SA933 (QR) -T	SI. TRANSISTOR	
IC			
IC1001	TA78L005AP	I. C.	
IC1201	VC2024Z	I. C.	
IC1202	AN7809F	I. C.	
IC1251	M52005P	I. C. (M)	
IC1421	TA8432K	I. C.	
IC1611	M5218L	I. C.	
IC1631	TDA1526	I. C.	
IC1661	TA8200AH	I. C. (M)	
IC1701	MN152121JMT4	I. C.	
IC1702	MN1280-K	I. C. (M)	
IC1831	MN12C201D	I. C. (M)	
IC1841	QH3091	IR DETECT UNIT	
IC1861	M51320P	I. C. (M)	
OTHERS			
	SGX-A001A-MU2	MTS MODULE PC BO	
	CM33719-00C-V0	ANT TERM ASSY	
CF1501	CSB503F39	C. RESONATOR	
CF1701	CSA4. 00MS3	CELAMIC FILTER	
DL1271	CE40907-B01	1H DELAY LINE	
S1401	QSL4A13-C02	LEVER SWITCH	V. Center
S1701	QSP4H11-C03	PUSH SWITCH	Function
S1702	QSP4H11-C03	PUSH SWITCH	Down
S1703	QSP4H11-C03	PUSH SWITCH	Up
S1704	QSP4H11-C03	PUSH SWITCH	Power
S1705	QSP4H11-C03	PUSH SWITCH	VolΔ
S1706	QSP4H11-C03	PUSH SWITCH	Vol▽
X1301	A76351-D	CRYSTAL	or CE40668-001

CRT SOCKET PC BOARD Ass'y (SGX3003A(H1))

SYMBOL NO.	PART NO.	PART NAME	REMARKS
VARIABLE R			
R3313	QVPA803-502M	V R (R CUT OFF)	5kΩ B
R3314	QVPA803-502M	V R (G CUT OFF)	5kΩ B
R3315	QVPA803-502M	V R (B CUT OFF)	5kΩ B
R3319	QVPA803-201M	V R (R DRIVE)	200 Ω B
R3320	QVPA803-201M	V R (G DRIVE)	200 Ω B
RESISTOR			
△ R3305	QRG029J-123	OM R	12kΩ 2W J
△ R3307	QRG029J-123	OM R	12kΩ 2W J
△ R3309	QRG029J-123	OM R	12kΩ 2W J
△ R3363	QRC121K-225EZ	COMP. R	2. 2MΩ 1/2W K
CAPACITOR			
C3361	QFH63BK-223M	MM CAP.	0. 022μF 1250V K
△ C3363	QET52ER-105	E CAP.	1μF 250V R
COIL			
△ L3307	CJ30030-110	HEATER CHOKE	
DIODE			
D1310	1SS133-T2	SI. DIODE	
D1311	1SS133-T2	SI. DIODE	
D1312	1SS133-T2	SI. DIODE	
D3301	1SS133-T2	SI. DIODE	
D3302	1SS133-T2	SI. DIODE	
D3361	DFM1A4	SI. DIODE	
TRANSISTOR			
Q3301	2SC1740S (R) -T	SI TRANSISTOR	
Q3302	2SC1740S (R) -T	SI TRANSISTOR	
Q3303	2SC1740S (R) -T	SI TRANSISTOR	
Q3304	2SC3271 (NP) -C1	SI. TRNSISITOR	
Q3305	2SC3271 (NP) -C1	SI. TRNSISITOR	
Q3306	2SC3271 (NP) -C1	SI. TRNSISITOR	
OTHERS			
△ S3301	CE41603-002 QSL4A13-C02	CRT SOCKET LEVER SWITCH	Service SW

POWER PC BOARD Ass'y (SGX9004A(H1))

SYMBOL NO.	PART NO.	PART NAME	REMARKS
RESISTOR			
△ R9901	QRF074K-1R8	UNF R	1.8 Ω 7W K
△ R9904	QRD123J-103SX	C R	10kΩ 1/2W J
△ R9905	QRF154J-331	UNF R	330 Ω 15W J
△ R9907	QRF054K-4R7	UNF R	4.7 Ω 5W K
△ R9909	QRF154J-331	UNF R	330 Ω 15W J
△ R9961	QRD161J-473Y	C R	47kΩ 1/6W J
CAPACITOR			
△ C9901	QCZ9034-472A	C CAP.	4700pFAC125V P
△ C9902	QCZ9034-472A	C CAP.	4700pFAC125V P
△ C9903	QCZ9034-472A	C CAP.	4700pFAC125V P
△ C9904	QEZ0145-567R	E CAP.	560μF 200V M
△ C9905	QEH62CM-106MZ	E CAP.	10μF 160V M
△ C9907	QFZ9025-104M	MPP CAP.	0.1μFAC125V M
△ C9908	QFZ9025-104M	MPP CAP.	0.1μFAC125V M
△ C9961	QCF31HP-103AZ	CH C CAP.	0.01μF 50V P
△ C9962	QCF31HP-103AZ	CH C CAP.	0.01μF 50V P
△ C9963	QCF31HP-103AZ	CH C CAP.	0.01μF 50V P
△ C9964	QCF31HP-103AZ	CH C CAP.	0.01μF 50V P
△ C9965	QETB1VM-338	E CAP.	3300μF 35V M
△ C9973	QETB1EM-108	E CAP.	1000μF 25V M
DIODE			
△ D9901	1S1887A-T3	SI. DIODE	
△ D9902	1S1887A-T3	SI. DIODE	
△ D9903	1S1887A-T3	SI. DIODE	
△ D9904	1S1887A-T3	SI. DIODE	
△ D9905	1S1887A-T3	SI. DIODE	
△ D9961	S4VB10	SI DIODE STACK	
△ D9962	1SS133-T2	SI. DIODE	
△ D9963	RD16E (B3)	ZENER DIODE	
△ D9964	1SS133-T2	SI. DIODE	
TRANSISTOR			
△ Q9961	2SA1015 (YG) -T	SI. TRANSISTOR	
△ Q9962	2SD1266A (QP)	SI. TRANSISTOR	
△ Q9963	2SC1815 (YG) -T	SI. TRANSISTOR	
IC			
△ IC9901	STR30130-A	I. C. (H)	
OTHERS			
△ F9901	QMF66U1-5R0S	FUSE	5.0A
△ F9902	QMF53U1-1R25S	FUSE	1.25A
△ F9961	QMF53U1-2R5S	FUSE	2.5A
△ LF9901	CE40247-00A	LINE FILTER	
△ RY9901	CESK002-001	RELAY	
△ TH9901	CE40595-001	TH POSISTOR	or CE40595-001T

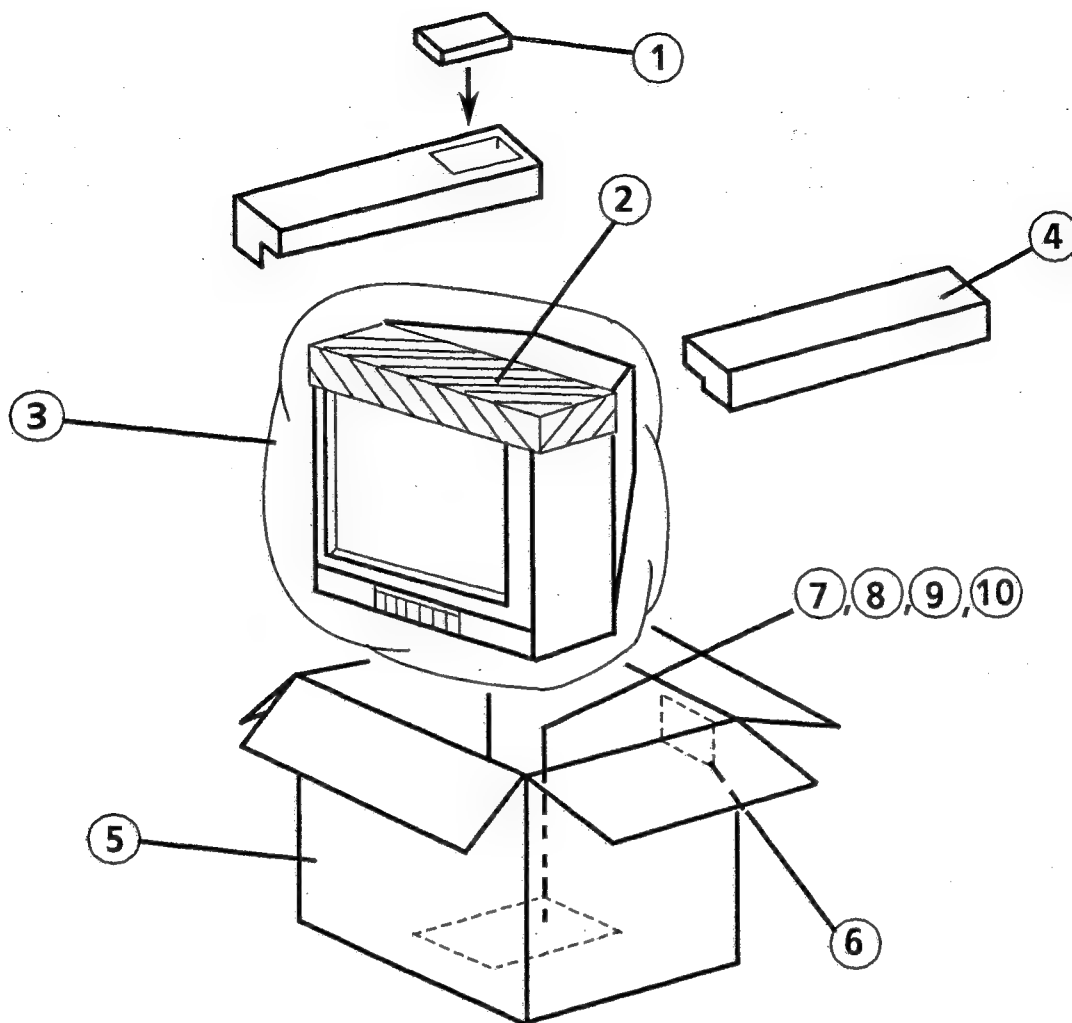
MODULE PC BOARD PARTS LIST

The following module pc boards are supplied as assemblies.

The component parts only the module PC boards are available only when the parts are listed in the "MODULE PRINTED CIRCUIT BOARD PARTS LIST".

IF MODULE PC BOARD Ass'y (SGX-F001A)
MTS MODULE PC BOARD Ass'y (SGX-A001A-MU2) with in MAIN PC BOARD Ass'y

PACKING



PACKING PARTS LIST

SYMBOL NO.	PART NO.	PART NAME	REMARKS
1	RM-C424-KD	REMOCON	
2	CP30055-002-A	TOP COVER	*
3	CP30056-002-A	POLY. BAG	*
4	CP10819-A0A-A	CUSHION ASSY	4Pcs in 1set * (AV-2750S)
5	CP10972-005-A	PACKING CASE	*
5	CP10972-018-A	PACKING CASE	(AV-2760S) *
6	CM20926-00A-A	REC KEEPING CARD	*
7	CM21229-B01	SAFETY TIPS	
8	BT-20113	WARRANTY CARD	
9	BT-20108A	SERVICE INF CARD	
10	2750, 60SUS-IBA	INST BOOK	

JVC SERVICE & ENGINEERING COMPANY OF AMERICA DIVISION OF US JVC CORP.

Head office	: 107 Little Falls Road Fairfield, New Jersey 07006	(201)808-2100
(East Coast)		
Midwest	: 2250 Lively Blvd., Elk Grove, Illinois 60007	(312)364-0880
Southwest	: 407 Garden Oaks Blvd., Houston, Texas 77018	(713)694-3331
West Coast	: 5066 Corporate Avenue, Cypress, California 90630	(714)229-8011
Southeast	: 3040 Northwoods Parkway, Norcross, Georgia 30071	(404)441-9244
Hawaii	: 2969 Mapunapuna Place Honolulu, Hawaii 96819	(808)833-5828

JVC

SCHEMATIC DIAGRAM

NOTICE

The voltage reading and waveform are measured at each point with a multi-meter and an oscilloscope while receiving a service color bar signal with a sufficient sensitivity. The measurements were made with each VR under the condition just after the shipment. The figures of the signal circuits may be more or less different after adjustments, so use the figures simply for reference.

Multimeter used

DC 20k Ω /V

Given figures are all DC voltages.



Sweep speed of oscilloscope

H — 20 μ S/div. V — 5 mS/div.

Others — sweep speed specified

Since the schematic diagram is a standard one, the circuit and circuit constants may be subject to change for improvement without any notice.

SAFETY

FR () denotes a fusible resistor which operates as a fuse. When replacing fusible resistors parts indicated with black shading () in the circuit diagrams, be sure to ensure safety by using designated parts.

As to other parts too, use designated parts to maintain safety and performance.

INDICATION OF PARTS SYMBOL

Inside board (Example) SGX-1004A R1209→R209

Outside board (Example) R0001→R01

SCHEMATIC DIAGRAM INDICATION

Resistor

- Resistance value

Without unit: Ω K : [k Ω] M : [M Ω]

- Rated allowable power

Without indication : 1/6W

Others indicated

- Type

Without indication : Carbon resistor

OMR : Oxide metal film resistor

UNFR : Unflamable resistor

MFR : Metal film resistor

FR : Fusible resistor

*Composition resistor 1/2 [W] is indicated as 1/2S or Comp.

Capacitor

- Capacitance

Above 1 : [pF] Below 1 : [μ F]

- Withstand Voltage

Without indication : DC 50 [V]

*Others : DC withstand voltage [V]

AC indicated : AC withstand voltage [V]

- Indications for electrolytic capacitors are as follows.

(Example) 47/50 — capacitance [μ F] / withstand voltage [V]

- Type

Without indication : Ceramic capacitor

MY : Mylar capacitor

MM : Metalized mylar capacitor

PP : Polypropylene capacitor

MPP : Metalized polypropylene capacitor

NP : Nonpolar electrolytic capacitor

BP : Bipolar electrolytic capacitor

TAN. : Tantalum capacitor

Coil

Without unit : [μ H]

Power Supply

———— : B1 (130V)

——— : 9V

———— : B2 (12V)


——— : 5V

* Each voltage reading specified.

Connection method

 : Connector

○ : Wrapping or soldering

 : Receptacle

Test point & GND. symbol.

⊙ : Test point by miniature GT pin

○ : Only test point display

⊥ : Live (Primary) side ground

≡ : Neutral (Secondary) side ground

■ DECODING CHIP PARTS CONSTANT TERMS

< CHIP METAL GLAZE RESISTOR >

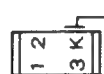


Multiplier

Constant term

$$12 \times 10^3 = 12000 [\Omega] = 12 [\text{k}\Omega] \text{ (Resistance)}$$

< CHIP CERAMIC CAPACITOR >



K, M, Z, P... Tolerance of ordinary type

C, P, R, ... Temperature coefficient of

S, T, U temperature compensation type

Multiplier

Constant term

$$12 \times 10^3 = 12000 [\text{pF}] = 0.012 [\mu\text{F}] \text{ (Capacitance)}$$

NOTE FOR SERVICE

This model's power circuit is partly different in the GND. The difference of the GND is shown by the LIVE (primary: \perp) side GND and the NEUTRAL (secondary: \equiv) side GND.

Don't short between the LIVE side GND and NEUTRAL side GND or never measure with a measuring apparatus (oscilloscope etc.) the LIVE side GND and NEUTRAL side GND at the same time.

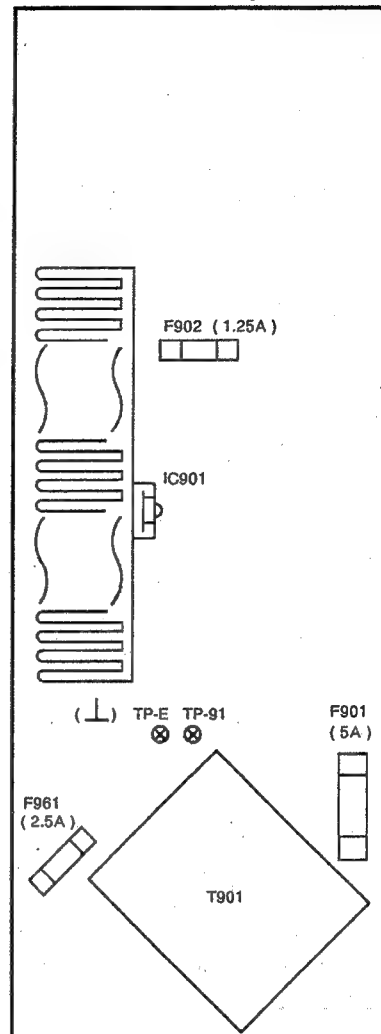
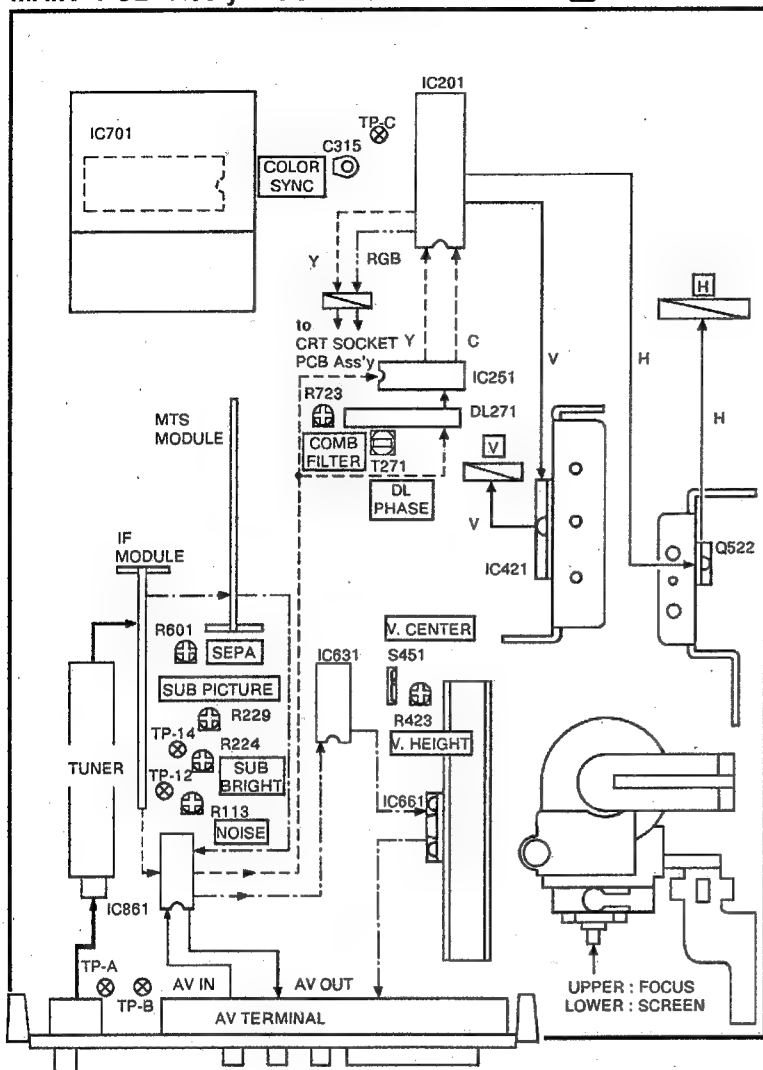
If above note will not be kept, a fuse or any parts will be broken.

ALIGNMENT LOCATION

MAIN PCB Ass'y SGX-1004A

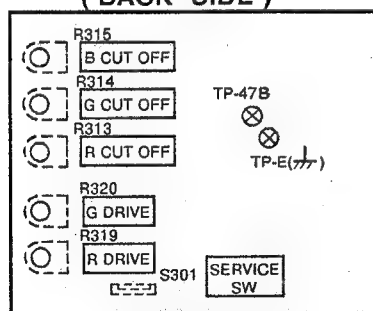


POWER PCB Ass'y SGX-9004A



CRT SOCKET PCB Ass'y SGX-3003A

(BACK SIDE)



-----> VIDEO SIGNAL
-----> AUDIO SIGNAL

Basing of Transistor & ICs



2SA1175(J,H)
2SC2785(J,H)
2SC3311A(Q,R)
2SA933(Q,R)



2SA673(C)
2SC1959(Y)
2SC2878(C)
2SA1015(Y,GR)
2SC1815(Y,GR)
2SC1740



2SC2655(Y)
2SC1360



2SD1555



2SD1266A(P,Q)



2SC3619



2SC2068



IC
TA78L005AP



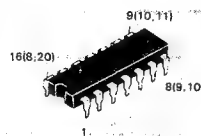
IC
AN7809F



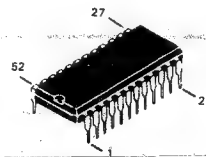
IC
MN1280-K



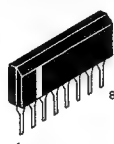
IC
STR30130-A



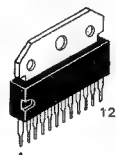
IC
MN12C201D
M51320P
TDA3810
TDA1526
M52005P



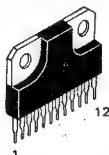
IC
MN152121JMT3
VC2024Z



IC
M5218L



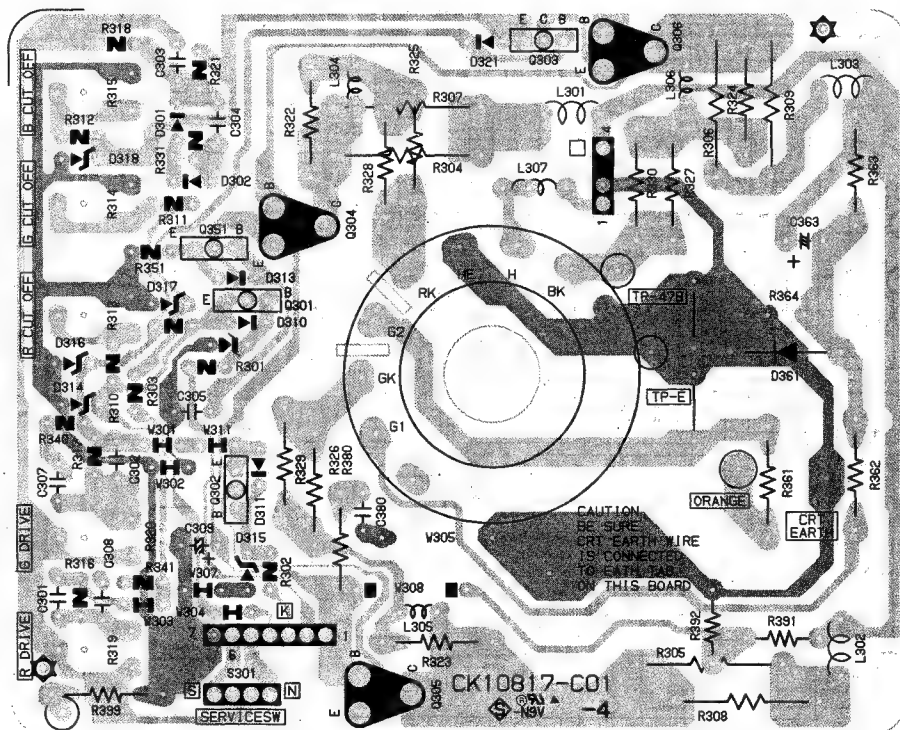
IC
TA8432K



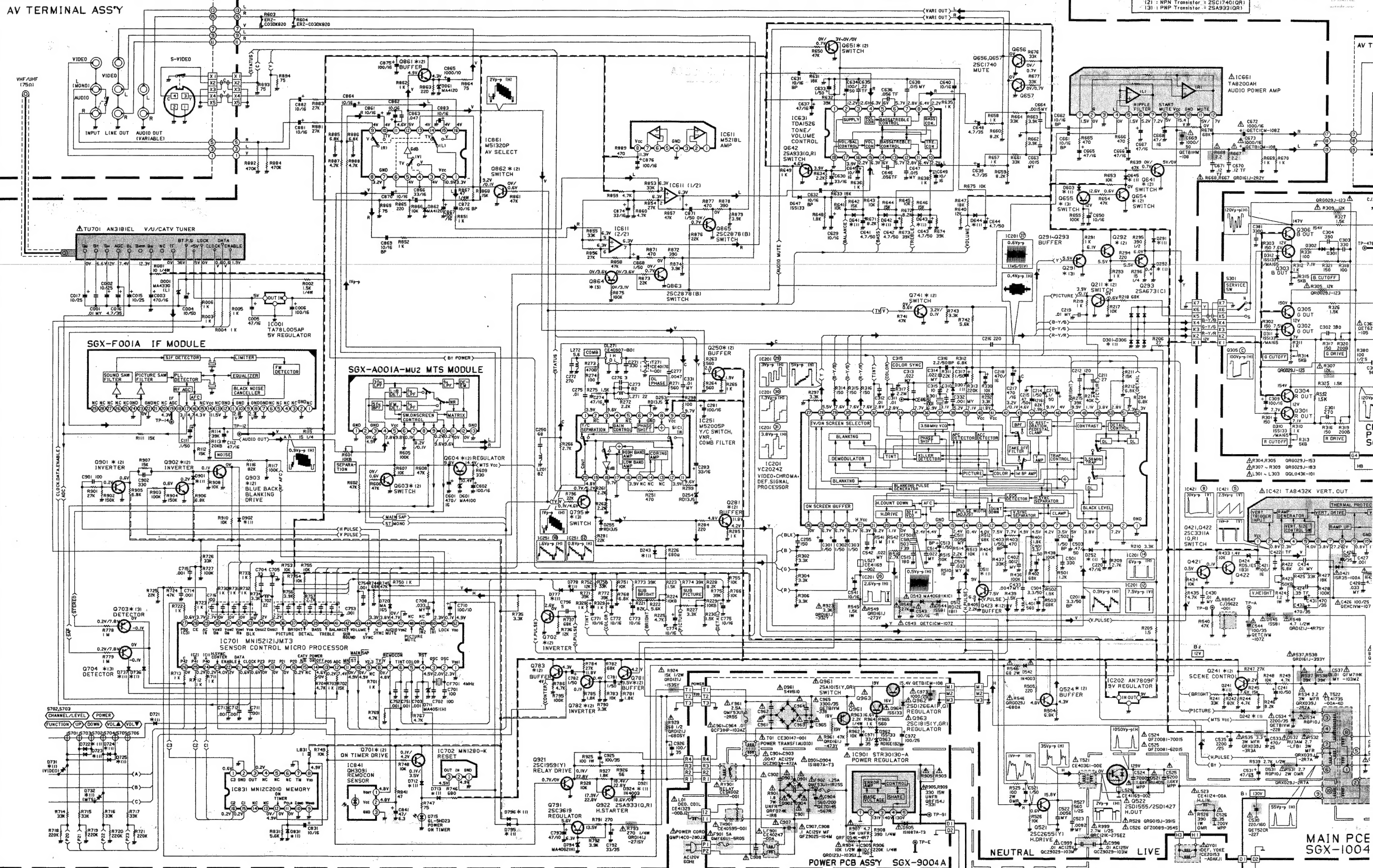
IC
TA8200AH

CRT SOCKET PCB BACK PATTERN

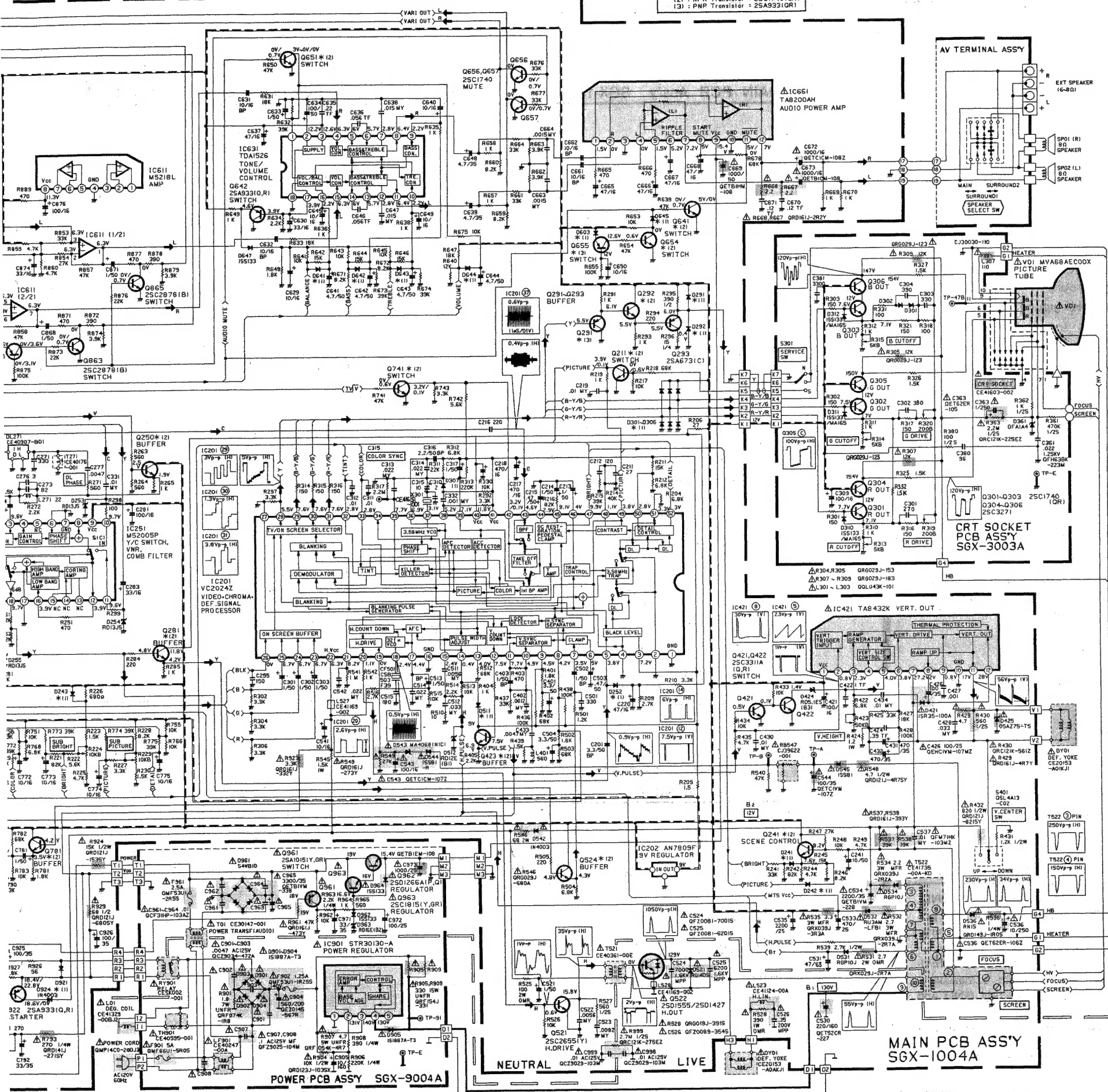
↑ TOP



AV TERMINAL ASS'Y



NOTICE
(1) : Diode = MA165
(2) : NPN Transistor = 2SC1740(OR)
(3) : PNP Transistor = 2SA931(OR)



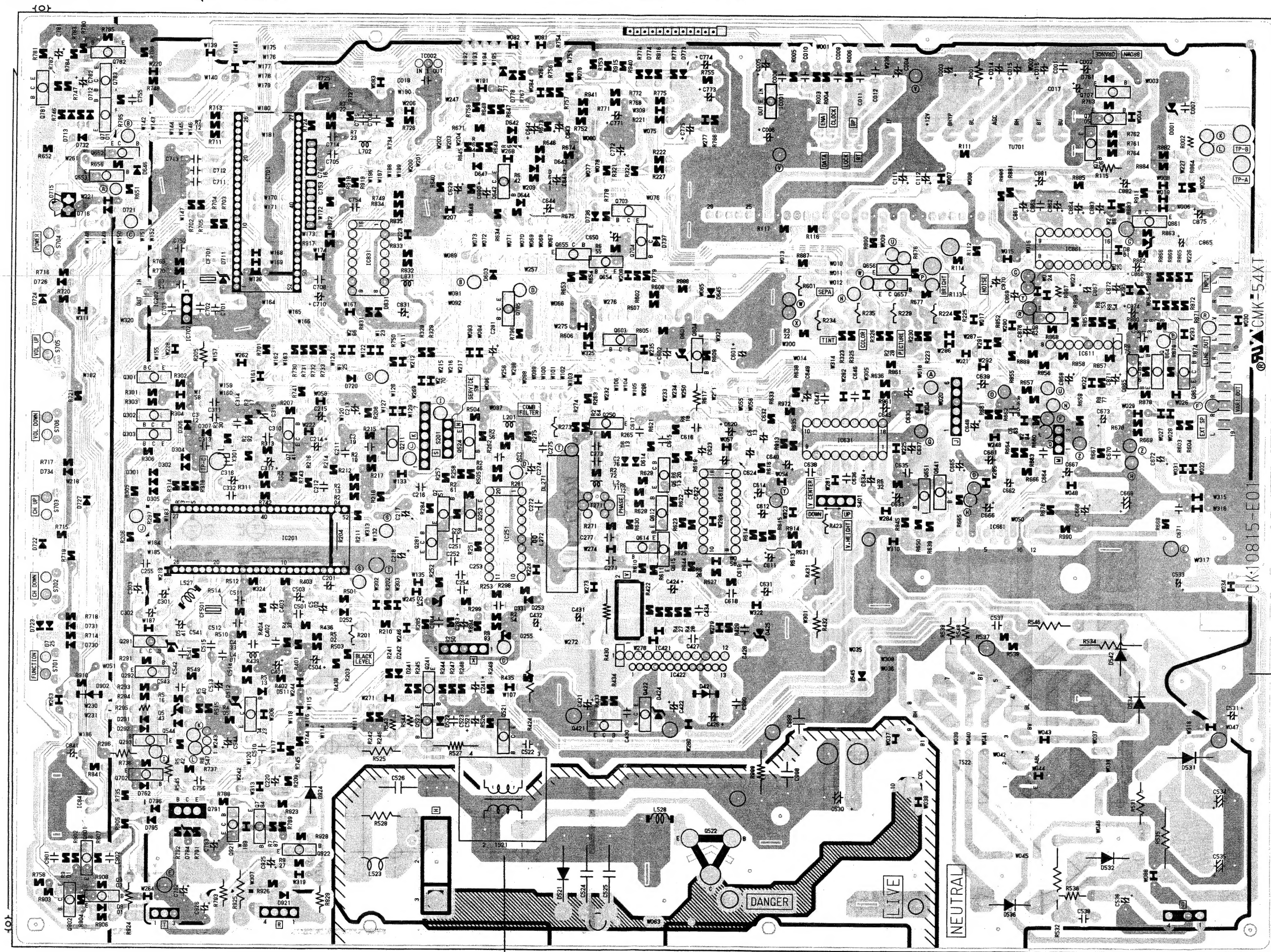
DIFFERENCE VOLTAGE LIST

(UNIT: V)

SYMBOL	PIN No.	MODE	VOLTAGE
IC 701	6	TINT	0.3~2.8
	5	COLOR	0.2~3.7
	36	PICTURE	0.4~7.9
	37	BRIGHT	0.6~12.0
	38	DETAIL	0.2~4.4
	39	BASS	0.1~3.5
IC 201	40	TREBLE	0.1~3.5
	41	BALANCE	0.1~3.5
	43	VOLUME	0.2~3.2
	43	VOLUME	0.2~3.2
IC 631	32	TINT	1.5~3.9
	33	COLOR	2.1~3.5
	49	PICTURE	3.3~3.7
	47	BRIGHT	9.3~9.7
	52	DETAIL	1.7~4.2
	9	BASS	1.3~2.8
	10	TREBLE	1.3~2.8
	16	BALANCE	0.2~3.8
	1	VOLUME	0.0~3.1

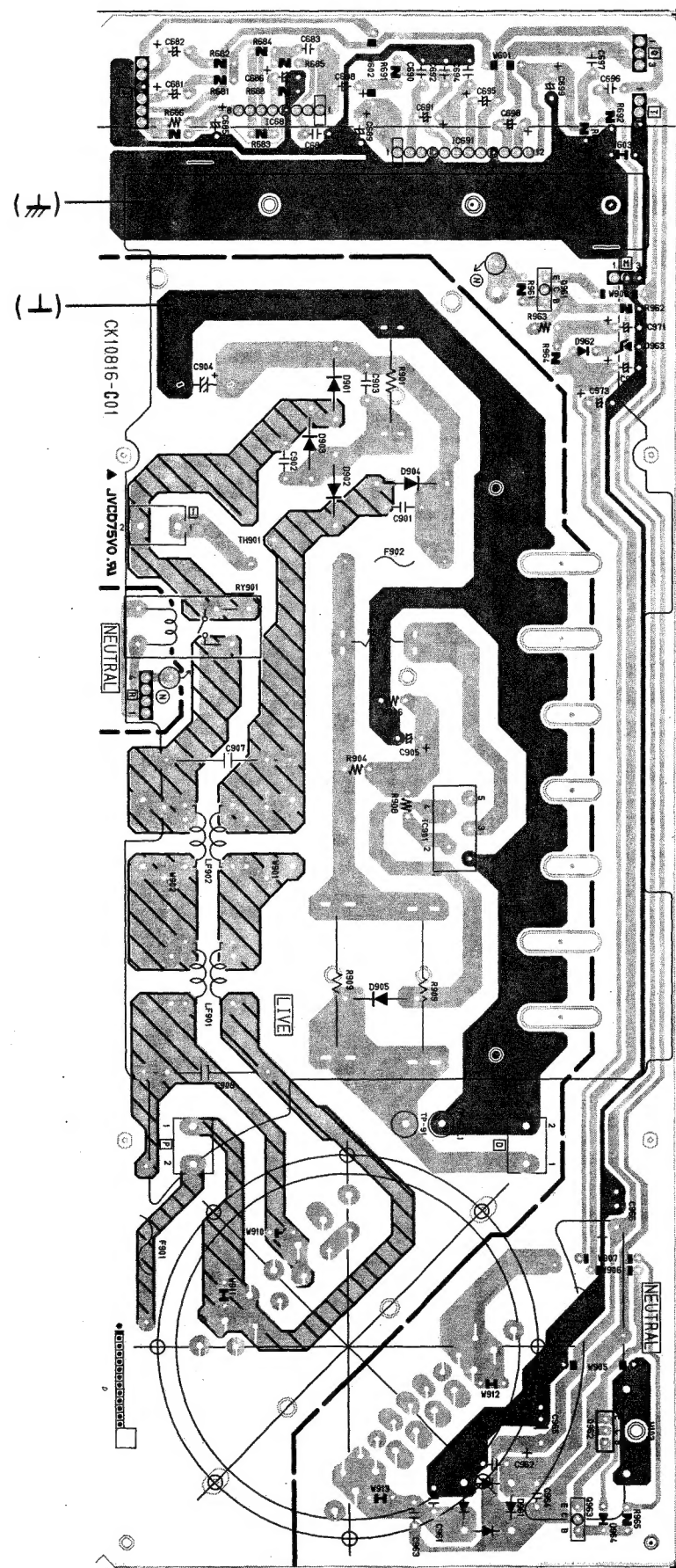
CHANNEL CHART

MODE				MODE				
T	V	CATV	BAND	T	V	CATV	BAND	
CHANNEL	REAL	DISPLAY	TUNER	CHANNEL	REAL	DISPLAY	TUNER	
			BAND				BAND	
O	O	VL	02	I	X	O	W+35	71
			03				W+36	72
			04				W+37	73
			05				W+38	74
			06				W+39	75
			07				W+40	76
	VH	08	II	W+41		77		
		09		W+42		78		
		10		W+43		79		
		11		W+44		80		
		12		W+45		81		
		13		W+46		82		
X	MID	A	I'	UL	TRA	W+47	83	
		B				W+48	84	
		C				W+49	85	
		D				W+50	86	
		E				W+51	87	
		F				W+52	88	
		G				W+53	89	
		H				W+54	90	
		I				W+55	91	
		J				W+56	92	
		K				W+57	93	
		L				W+58	94	
	SU PER	N	II	W+59	100			
		O		W+60	101			
		P		W+61	102			
		Q		W+62	103			
		R		W+63	104			
		S		W+64	105			
		T		W+65	106			
		U		W+66	107			
		V		W+67	108			
		W		W+68	109			
		X		W+69	110			
		HY PER		W+1	IV	W+70	111	
W+2	W+71		112					
W+3	W+72		113					
W+4	W+73		114					
W+5	W+74		115					
W+6	W+75		116					
W+7	W+76		117					
W+8	W+77		118					
W+9	W+78		119					
W+10	W+79		120					
W+11	W+80		121					
W+12	W+81		122					
UL TRA	W+13	IV	W+82	123				
	W+14		W+83	124				
	W+15		W+84	125				
	W+16		A-3	01				
	W+17		SUB MID	A-4	96			
	W+18			A-3	97			
	W+19			A-2	98			
	W+20			A-1	99			
	W+21			O	X	UHF	14 69	IV
	W+22							
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W+27	TOTAL 180 ch	VHF 124 ch UHF 56 ch						
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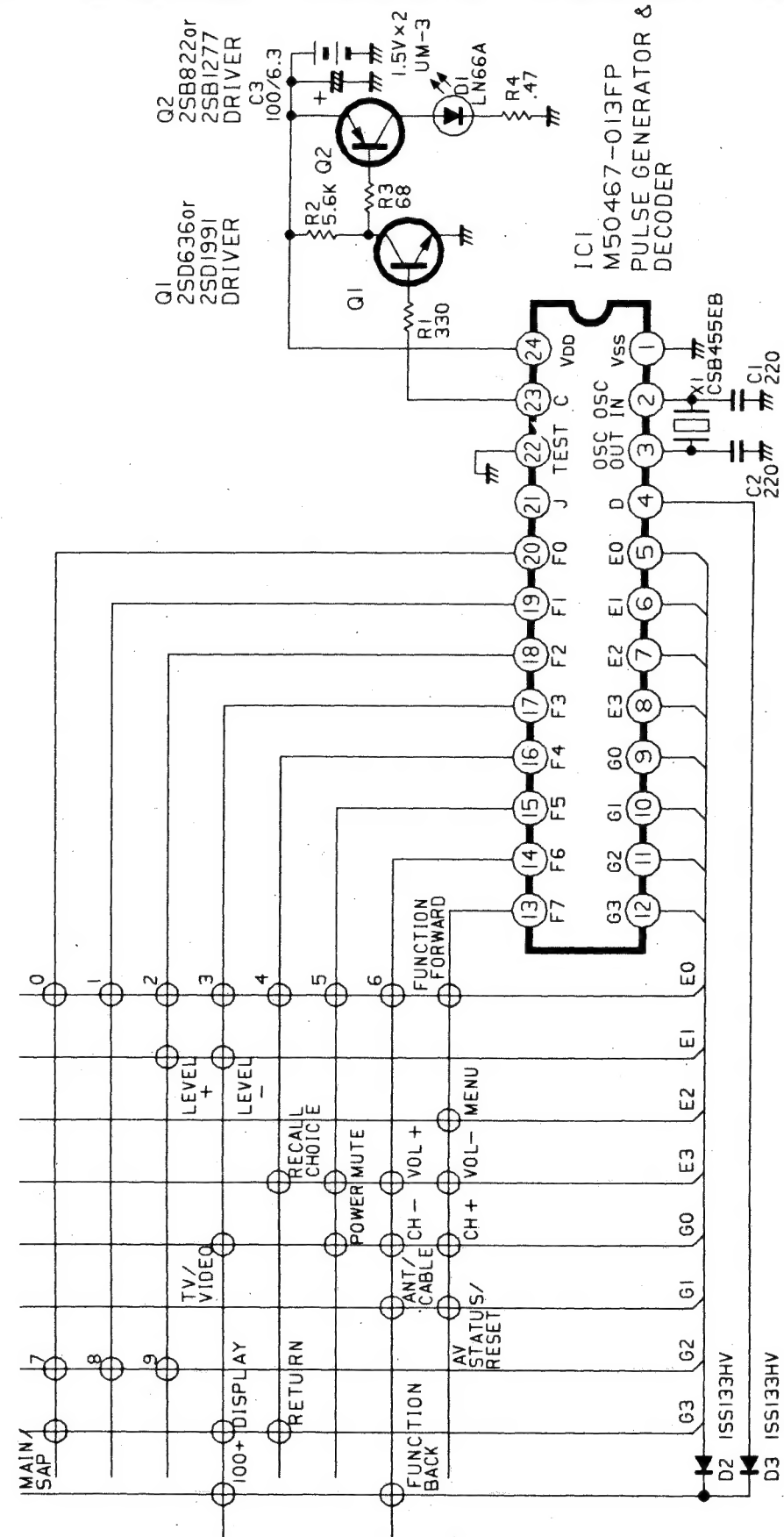
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(A)

■ REMOTE CONTROL TRANSMITTER RM-C424

RM-C424 REMOTE CONTROL TRANSMITTER



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